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ABSTRACT

This report describes results from the 1997 Utah Youth Risk Behavior Survey (YRBS) and the 1996 Utah School Health Education Profile (SHEP). The YRBS surveyed 9th-12th graders in a random sample of schools about their behaviors that risk their health. Results indicated that students still engage in behaviors that put them at risk for injury or death and that increase social problems that carry into adulthood. Too few still wear seatbelts, though the percentage is rising. No progress is evident regarding helmets. Rates of fighting and carrying weapons have decreased, though they are still too high. Suicide rates are above the national average. Overall, the use of tobacco, alcohol, and drugs has decreased. However, increasing numbers of Utah students are trying marijuana. Eighteen percent of students believe they have done something to put them at risk for HIV/AIDS. Nearly two-thirds of girls are attempting weight loss. The SHEP examined the status of health education in secondary schools (grades 6-12). Surveys of principals and teachers indicate that most schools require a health education course in at least one grade, most have separate required health education classes, many integrate health into other subjects, and most require health education for graduation. Most schools require HIV/AIDS education within health education and have written HIV/AIDS policies. In 45 percent of schools, health educators coordinate health education. Parents tend to approve of the health education. (Contains 43 references.) (SM)

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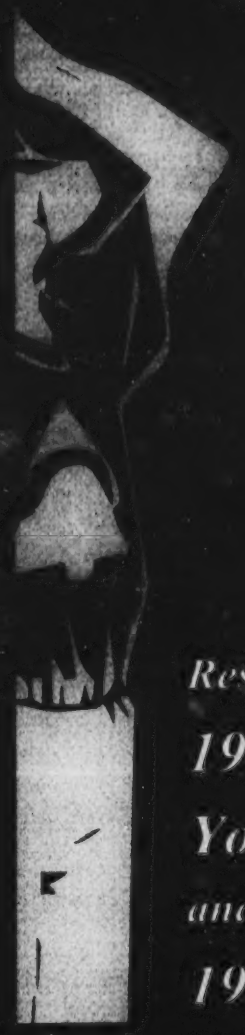

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Prepared by
Brian Robertson
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For
The Utah State
Office of Education
Scott W. Bean,
State Superintendent
of Public Instruction

Results of the
1997 Utah
Youth Risk Behavior
and
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Surveys

SP038777

for healthy kids?

May 1998

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Sponsorship of 1997 Utah YRBS and 1996 SHEP

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Introduction

This report presents results from the 1997 Utah Youth Risk Behavior Survey and the 1996 Utah School Health Education Profile. The research was conducted by the University of Utah during 1996 and 1997.

Health problems among youth are brought about by behaviors that are, in large part, preventable. These include alcohol, tobacco, and drug use; intentional and unintentional injuries; dietary behaviors; and the lack of physical activity. Schools provide the opportunity to reach out to the youth of Utah to address these behaviors. This report provides a summary that will hopefully stimulate discussion among educators, parents, and youth throughout Utah.

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1997 Utah Youth Risk Behavior Survey

The Youth Risk Behavior Survey (YRBS) was designed as an instrument to measure the extent to which school-age children in Grades 9 through 12 engage in and perform behaviors that risk their health.

The Youth Risk Behavior Survey (YRBS) was designed as an instrument to measure the extent to which school-age children in Grades 9 through 12 engage in and perform behaviors that risk their health. The survey was developed by experts nationwide under the guide of the Centers for Disease Control to measure risky behaviors that result in intentional and unintentional injuries; the use of tobacco, alcohol, and other drugs; dietary behavior that may result in health problems; and physical inactivity. The national survey was also designed to measure sexual behavior. In Utah, the YRBS was administered omitting the questions about sexual behavior.

Sample Population and Methods

All regular public schools, which taught any of Grades 9, 10, 11, or 12, as well as alternative and adult education schools, were included in the sampling frame. Within each school, all classes in a required subject or classes meeting at a specific period of the day (depending on the school) were eligible for inclusion in the sampling frame. Once identified, a random sample of 23 schools was selected from this school population. Once a school had been selected to participate, a class was randomly selected within the school for participation. Systematic equal probability sampling techniques were used to identify the class (within each school) that would participate in this research.

Once a school and class had been identified, a local contact was identified to administer the survey to the students in the selected class. Each identified survey administrator was provided with a set of written instructions in order to ensure uniform survey administration across all sites. Survey administrators were provided with all materials necessary to administer the survey and return the completed forms. Students within the selected class were asked to complete the Utah YRBS form. Protocols were observed that protected the anonymity of students asked to participate and the confidentiality of their responses. Students were also instructed that their participation was voluntary.

The results of the 1997 YRBS are based on 1,388 completed and returned surveys. The survey was administered during January 1997. Twenty-two of the 23 schools asked to participate returned questionnaires for a school response rate of 96%. A total of 1,880 students were asked to participate in this research, resulting in a student response rate of 74%. The overall response rate (the product of the school and student response rate) was 71%.

Data Weighting

The results presented in this report have been weighted to reflect the actual distribution of Utah students attending schools. Data weighting is often conducted to reduce bias by compensating for differing patterns of nonresponse. The weighted results presented in this report are considered representative of the entire student population in Utah public schools (Grades 9 through 12). The weighted results can be used to make inference about the health-risk behaviors of these students.

Data Analysis—Comparative Results

This report presents comparisons between various subpopulations as well as trend comparisons. In all cases, the differences (except when noted) were statistically significant. A Pearson Chi-square test was performed for each comparison to determine significance. The significance of the Chi-square statistic is indicated by its probability. A high probability score (e.g., $p = .50$) indicates that for the number of people represented in the table, the magnitude of the Chi-square statistic could have been achieved by chance (in this case, a 50/50 chance). Smaller probability scores indicate that something other than chance (for instance, actual differences in attitudes from one group to the next) was likely to have been responsible for the magnitude of the Chi-square. A probability of .05 or less is generally considered to represent a statistically significant result. This can be interpreted meaning there was a statistically significant difference in the way the groups responded to a given question.

Demographics

Of the respondents participating in the 1997 YRBS, 51% were male while 49% were female. Twenty-six percent of respondents indicated they were enrolled in the 9th grade, 26% in the 10th grade, 23% in the 11th grade, and 23% in the 12th grade. One percent of respondents were ungraded or in some other grade. By age, 15% were 15 years old or younger, while 26% indicated they were 16 years of age, 25% were 17 years old, and 15% were 18 years of age or older. Caucasian students made up the majority of respondents (88%). The largest minority component was Hispanic or Latino students, which accounted for 5% of respondents. Students who indicated their ethnicity was Asian or Pacific Islander accounted for another 3% of respondents. The remaining respondents indicated they were African American, Native American or Alaskan, or some other ethnicity.

The results presented in this report have been weighted to reflect the actual distribution of Utah students attending schools.

Unintentional and Intentional Injuries

Injuries (both intentional and unintentional) are the leading cause of death among Utahns age 15 to 24. The death rate in the years 1991 though 1995 (inclusive) among this age group was 63 per 100,000. Deaths due to motor vehicle accidents or types of injuries, suicide, and homicide accounted for 77% of the deaths in this age group (Office of Public Health Data, 1996b). In all instances, the death rates are significantly higher among males in this age group than females in Utah and nationally. In the United States, 72% of all deaths among youth and young adults 15 to 24 years of age result from these four causes: motor vehicle crashes (28% of all deaths in this age group), other unintentional injuries (11%), homicide (21%), and suicide (12%) (Centers for Disease Control and Prevention, 1996).

Seat Belt Use

Year 2000 Goal

- *Increase the use of occupant protection systems, such as safety belts, inflatable safety restraints, and child safety seats, to at least 85% of motor vehicle occupants.*

The use of seat belts by those traveling in motor vehicles can significantly reduce the number of fatalities and serious injuries caused by automobile accidents. The use of seat belts is estimated to reduce motor vehicle fatalities by 40% to 50% and serious injuries by 45% to 55% (National Committee for Injury Prevention and Control, 1989).

Thirty percent of respondents to the 1997 YRBS indicated they always wore a seat belt when riding in a car when driven by someone else, while another 37% indicated they wore a seat belt most of the time.

One of the goals for the year 2000 is to increase the use of occupant protection systems, such as safety belts, inflatable safety restraints, and child safety seats, to at least 85% of motor vehicle occupants.

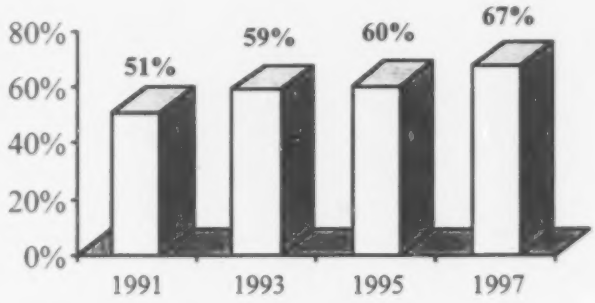


Figure 1. Percentage of Students Who Always or Almost Always Wore a Seat Belt When Riding in a Vehicle Driven by Someone Else (Tabulated by Year of YRBS)

Female respondents were more likely to report they wore a seat belt "always" (34% compared to 27% of male respondents). Students in the 10th grade were more likely to wear seat belts most or all of the time than students in other grades (73% of 10th grade respondents). Comparisons with results from previous YRBS indicate that seat belt use has increased among students attending secondary schools in Utah, as summarized in Figure 1. Though the percentage is well below the stated goal for the year 2000, the percentage of students reporting they wore a seat belt always or most of the time has been steadily increasing.

In 1991, only 51% of respondents to the YRBS reported wearing seat belts always or most of the time while riding in a car driven by someone else, while 59% of 1993 respondents always or almost always

Among those riding motorcycles, only 27% indicated they wore a helmet all of the time and another 11% indicated they wore a helmet most of the time. Forty-three percent indicated they never wore a helmet.

wore a seat belt. The 1997 figure of 67% is significantly higher than the 1991, 1993, and 1995 percentages. Nationwide, 21.7% had rarely or never used a safety belt compared to only 17% in Utah (Centers for Disease Control and Prevention, 1996).

Motorcycle and Bicycle Safety

Year 2000 Goal

- *Increase use of helmets to at least 80% of motorcyclists and at least 50% of bicyclists.*

Head injury is the leading cause of fatalities in both motorcycle and bicycle accidents (Sosin, Sacks, and Holmgreen, 1990). Those not wearing helmets are at increased risk of both significant head injury and death. Unhelmeted motorcyclists are twice as likely to incur a fatal head injury and three times as likely to suffer a nonfatal head injury during an accident than those riders wearing helmets (National Highway Traffic Safety Administration, 1980). Unhelmeted bicyclists are six and a half times more likely to suffer a head injury during an accident than those who wear helmets (Thompson, Rivara, and Thompson, 1989).

A total of 26 motorcyclists were killed in Utah during 1996 of which 20 were not wearing helmets (Utah Department of Public Safety, 1998). Eight of these fatalities were individuals under the age of 25 (Utah Department of Public Safety, 1998). In addition, eight bicyclists were killed in Utah during the same period (Utah Department of Public Safety, 1998).

Most students (63%) indicated they did not ride a motorcycle during the past 12 months. Male respondents were more likely to report they rode a motorcycle (46% compared to 28% of female respondents). Among those who rode motorcycles, most of them reported riding 10 or fewer times during the past 12 months. The frequency of helmet use is summarized in Figure 2.

The percentages for male and female respondents were comparable. No progress has been made toward reaching the year 2000 goal with regards to wearing helmets among students in Utah. The percentage reporting they never wore a helmet in 1997 is comparable to the percentage from the 1991 YRBS (45%). The percentage of Utah

students reporting they never wore a helmet while riding a motorcycle is also comparable to the national figure of 44% (Centers for Disease Control and Prevention, 1996).

In 1997, 84% of students reported they rode a bike during the past 12 months. Most bicycle riders reported riding 10 or fewer times during this period. Males were more likely than females to report riding a bike (90% of males compared to 79% of females).

Females were more likely to report not wearing a helmet than males (82% indicating they never wore a helmet compared to only 71% of males). Some progress has been made among Utah students toward meeting the year 2000 goal of 50% of riders wearing helmets. The percentage of respondents reporting they never wore a helmet has decreased from 84% of the respondents to the 1991 YRBS. Nationally, 76% of students reported they never wore a helmet when riding a bicycle (Centers for Disease Control and Prevention, 1996).

Only 9% indicated they wore a helmet most of the time or always when riding a bicycle. Seventy-six percent of bicycle riders indicated they never wore a helmet when riding a bicycle.

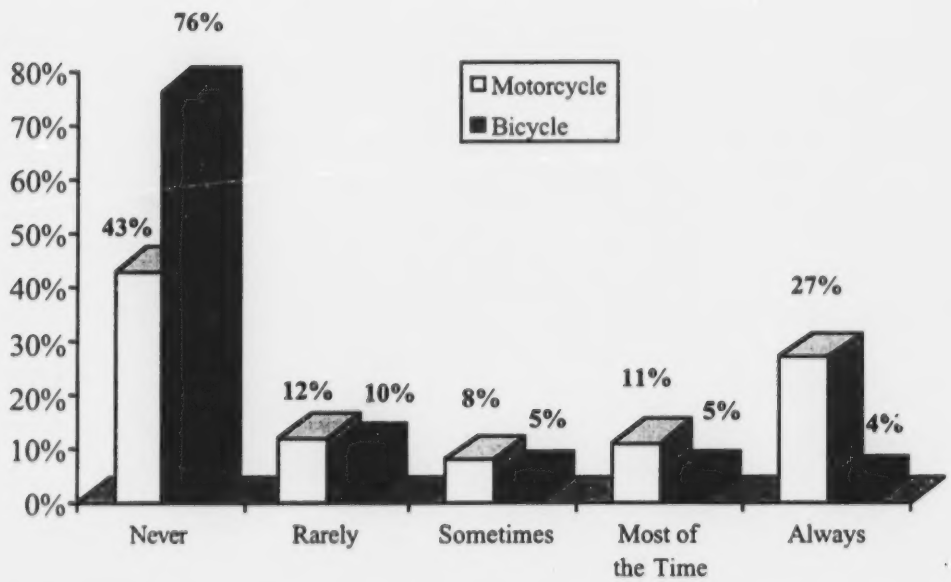


Figure 2. During the past 12 months, how often did you wear a helmet while riding a motorcycle/bicycle?

Motor Vehicle Safety

Eighty-one percent of students indicated that in the past 30 days they did not ride in a car or other vehicle driven by someone who had been drinking alcohol.

Nineteen percent reported one or more instances in the past 30 days when they rode in a car driven by someone who had been drinking alcohol.

Year 2000 Goals

- *Reduce the number of fatalities among the 15 to 24 age group to no more than 33 per 100,000 individuals.*
- *Reduce the number of alcohol-related fatalities among the 15 to 24 age group to no more than 18 per 100,000 individuals.*

The overall fatality rate among Utahns in motor vehicle accidents was 18.3 deaths per 100,000 population in 1994 and represents the most common cause of death for Utahns under the age of 50 (Office of Public Health Data, 1996). Factors such as excessive speed, driving under the influence, and the lack of use of safety restraints contribute to fatalities during accidents. Overall death rates have increased somewhat from 1991 to 1994 (Office of Public Health Data, 1996). One of the key national health objectives for the year 2000 is to reduce the number of fatalities among the 15 to 24 age group to no more than 33 per 100,000 individuals. Statistics gathered by the Utah Department of Health indicate that the rate among all Utahns in this age group is 29.6 per 100,000, or below the stated goal for the year 2000 (Office of Public Health Data, 1996b). The rate and total number of deaths among males in this age group is significantly higher than females age 15 to 24, with rates of 41.0 and 18.7 per 100,000, respectively (Office of Public Health Data, 1996b). Fatalities from motor vehicle accidents are the leading cause of death among this age group for both male and female Utahns.

Alcohol is a prime contributor to motor vehicle accidents and fatalities. Approximately half of all accidents involve drivers under the influence of alcohol (National Center for Health Statistics, 1993). The reduction in the percentage of drivers under the influence of alcohol would not only reduce fatalities but serious injuries as well. Alcohol-related traffic accidents might cause serious injury and permanent disability and represent the leading cause of spinal cord injury among adolescents and young adults (National Highway Traffic Safety Administration, 1987).

Comparing Utah to the nation, Figure 3 summarizes the percentage of students who indicated driving with a person under the influence of alcohol and/or driving under the influence during the past 30 days.

Nine percent of students reported driving a vehicle in the past 30 days when they had been drinking.

Nineteen percent reported one or more instances in the past 30 days when they rode in a car driven by someone who had been drinking alcohol. Six percent indicated they had done so six or more times. The percentage of students reporting they rode in a car with someone who had been drinking decreased slightly (from 25% in 1991 to 19% in 1997). The Utah percentage of 19% who had ridden with someone who had been drinking alcohol is significantly below the national percentage. During the 1995 National YRBS, 38.8% of respondents had ridden with a driver who had been drinking alcohol during the 30 days preceding the survey (Centers for Disease Control and Prevention, 1996).

Nine percent of students reported driving a vehicle in the past 30 days when they had been drinking. This is well below the national percentage of 15% (Centers for Disease Control and Prevention, 1996). The percentage of students in 1997 reporting driving under the influence is comparable to the percentage of students in 1991.

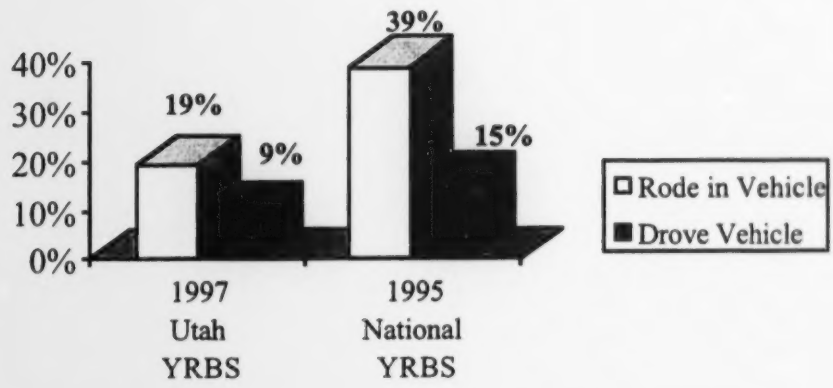


Figure 3. Percentage of Students Reporting They Rode in a Vehicle With Someone Who Had Been Drinking Alcohol or Drove a Vehicle After Drinking Alcohol in the Past 30 Days (One or More Times) (Utah and Nationally)

Twenty-three percent of students indicated they had seriously considered attempting suicide during the past 12 months.

Suicide

Year 2000 Goals

- *Reduce suicides to no more than 8.2 per 100,000 among youth aged 15 to 19.*
- *Reduce by 15% the incidence of injurious suicide attempts among adolescents aged 14 to 17.*

Nationwide, suicide is the third leading cause of death among youth age 15 to 24, and the second leading cause of death among white males in this age group (National Center for Health Statistics, 1993). Suicide rates among people of this age group have tripled since 1950 (U.S. Department of Health and Human Services, 1990). Among Utahns age 15 to 24, suicide is the second leading cause of death. The suicide rate per 100,000 population in Utah is 20.5, second only to motor vehicle fatalities (Office of Public Health Data, 1996b). This figure is well above the stated goal for the year 2000. Suicide accounted for 25% of Utah fatalities among this age group during the period 1991-1995. The rate among Utah males age 15 to 24 was nearly ten times that among female Utahns: 37.8 per 100,000 compared to only 3.9 per 100,000 among females age 15 to 24 (Office of Public Health Data, 1996b). The suicide rate in Utah is well above the national average. Nationally, the suicide rate was 10.9 per 100,000 among those aged 15 to 19 and 14.9 per 100,000 among adults ages 20 to 24 (Centers for Disease Control, 1995).

Figure 4 presents a summary on suicide consideration and attempts among Utah students in Grades 9 through 12.

Twenty-three percent of students indicated they had seriously considered attempting suicide during the past 12 months. This is comparable to the national figure of 24% (Centers for Disease Control and Prevention, 1996). Female respondents were more likely to indicate they contemplated suicide than male respondents did (29% compared to 16% of males). The age of the student did not have a significant impact of these considerations.

Among those who seriously considered attempting suicide during the past 12 months, nearly two-thirds (63%) indicated they had made a plan about how they would attempt suicide. This represents 14% of all Utah students in Grades 9 through 12. This is slightly less than the 18% of students nationwide (Centers for Disease Control and Prevention, 1996).

Thirty-six percent of those contemplating suicide attempted suicide at least once during the past 12 months. This represents 8% of all Utah students in Grades 9 through 12. This is comparable to the national figure of approximately 9% (Centers for Disease Control and Prevention, 1996). Female respondents were more likely to actually attempt suicide (10% of all female students compared to only 5% of male students). Forty-six percent of those attempting suicide indicated that at least one attempt resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse.

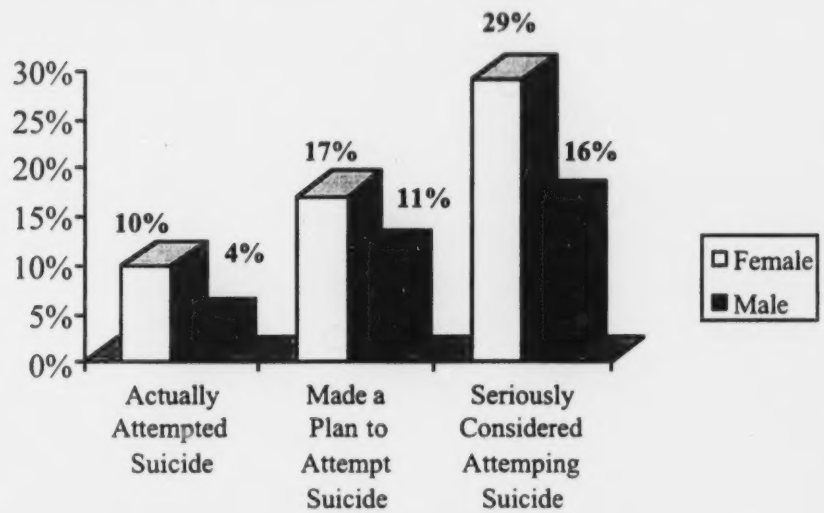


Figure 4. Percentage of Students Reporting They Had Seriously Considered Suicide, Made a Plan for Suicide, and/or Actually Attempted Suicide in the Past 12 Months

Comparisons to results from the 1991 YRBS indicate that the percentages of respondents contemplating, planning, or attempting suicide have not decreased significantly. The percentage of students (in 1997) reporting they had seriously considered attempting suicide during the past 12 months is comparable to the percentage reported in 1991, when 25% indicated they had considered attempting suicide. Fourteen percent of respondents in 1997 made a plan about how they would attempt suicide, compared to 16% in 1991. Finally, 8% of the 1997 respondents attempted suicide, compared to 7% of respondents in 1991. The small differences observed between the 1991 and 1997 figures were statistically insignificant. With regards to injuries while attempting suicide, however, the percentage reporting an injury (among those who had attempted suicide) increased significantly. In 1991, only 30% (of those attempting suicide) reported that an attempt resulted in

Seven percent had been threatened or injured with a weapon on school property at least once during the past 12 months.

an injury, poisoning, or overdose that required the attention of a doctor or nurse. In 1997, this figure was 46%. Instead of moving toward the year 2000 goal of reducing the incidence of injurious suicide attempts by 15%, the rate increased significantly from 1991 to 1997.

The figures for Utah in considering, planning, or attempting suicide are comparable to or slightly lower than the national figures reported in the 1995 YRBS. Nationwide, 24% seriously considered suicide, 18% made a plan, and 9% actually attempted suicide (Kann, et al., 1996).

Violence and Fighting

Thirty-five percent of students reported that someone had stolen or deliberately damaged their property while at school.

Safety at School

Nearly all respondents (95%) indicated there were not any days in the past 30 they did not want to go to school because they felt it would be unsafe (either at school or on their way to and from school). Thus, 5% of respondents indicated they felt unsafe.

Males were more likely to have been threatened or injured than females (10% compared to 4% of females).

Thirty-five percent of students reported that someone had stolen or deliberately damaged their property while at school. One-half of these students indicated this had occurred two or more times during the past 12 months. Significantly fewer students age 18 years and older (28%) reported problems with theft or damage to their property.

Physical Fighting and Carrying of Weapons

Year 2000 Goals

- *Reduce by 20% the incidence of physical fighting among adolescents aged 14 to 17.*
- *Reduce by 20% the incidence of weapon carrying among adolescents aged 14 to 17.*

Nonfatal violence often precedes fatal violence among young persons (Luckenbill, 1977). Reducing physical fighting may help reduce fatal violence among this population. Nationwide, homicide is the second leading cause of death among those aged 15 to 24 (National Center for Health Statistics, 1993). In Utah, the rates of homicide during the period 1991 to 1995 were 5 per 100,000, making it the fourth leading cause of death among this age group (Office of Public Health Data, 1996b). Homicide rates in Utah were significantly higher among males in this age group than females (7.5 per 100,000 compared to only 2.5 per 100,000 for females age 15 to 24).

Thirty-two percent of respondents indicated they were involved in a physical fight during the past 12 months.

Figure 5 summarizes physical fighting among Utah students.

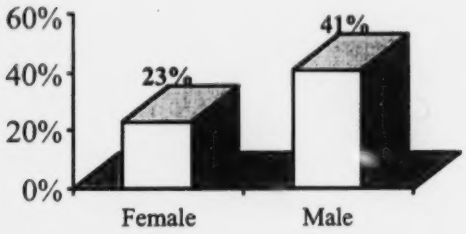
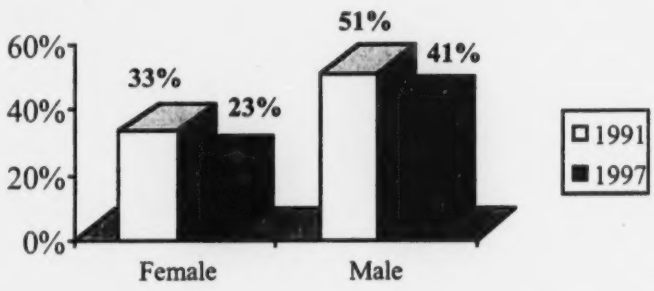


Figure 5. Percentage of Students Reporting They Had Been Involved in One or More Physical Fights During the Past 12 Months (Tabulations by Gender)

Among those students involved in a physical fight, 42% had been involved in a fight on school property during the past 12 months, or 13% of all respondents.

Thirty-two percent of respondents indicated they were involved in a physical fight during the past 12 months. Nationwide, the figure was 39% of all students (Centers for Disease Control and Prevention, 1996). Twenty-three percent of female students and 41% of male students indicated they were involved in a physical fight. The median number of physical fights reported by students was 2 to 3 during the past 12 months (among those reporting involvement). Twelve percent of these students reported they were injured and had to be treated by a doctor or nurse at least once during the past 12 months. Students in the 9th grade were more likely to have been involved in a fight (40%), while students in the 12th grade were less likely (only 25% indicated they were involved in a physical fight).

Figure 6. Percentage of Students Reporting They Had Been Involved in One or More Physical Fights During the Past 12 Months (Tabulations by Gender and Year of YRBS)



member. Male students tended to fight with friends or someone they knew (41%), while female students fought with family members (44%).

The percentages of both male and female students involved in a physical fight during the past 12 months have decreased significantly from 1991 (as reported in the YRBS). This decrease is summarized in Figure 6. In 1991, 51% of male respondents and 33% of female respondents were involved in a physical fight. The percentages decreased by 10 percentage points among both male and female respondents between 1991 and 1997.

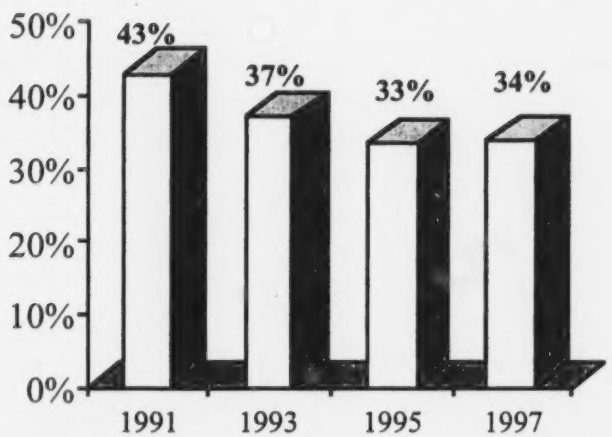


Figure 7. Percentage of Male Students Who Carried a Weapon at Least Once During the Past 30 Days (Tabulation by Year of YRBS)

The percentage of female students injured in a fight remained constant (2%), while the percentage of male students injured decreased slightly (from 7% in 1991 to 5% in 1997).

During the past 30 days, 21% of students in Grades 9 through 12 reported carrying a weapon (such as a gun, knife, or club) at least once. This is comparable to the national figure of 20% (Centers for Disease Control and Prevention, 1996). Forty-eight percent of Utah students carrying weapons carried them six or more days out of the last 30. This represents 10% of all Utah students. The percentage of males carrying weapons during the past 30 days dropped significantly from the percentage reported in the 1991 and 1993 YRBS (Figure 7), down from 43% during 1991 and 37% in 1993. This indicates progress toward meeting the year 2000 goal. Figure 8 presents a summary of the percentage of students carrying weapons by gender. Male students were more likely than female students to carry a weapon during the past 30 days. While 34% of male students indicated they carried a weapon during the past 30 days, only 6% of female students carried a weapon.

Nine percent of students indicated they had carried a gun during the past 30 days. Fifteen percent of the males had carried a gun during the past 30 days compared to only 2% of the females. This is comparable to the national percentage reported for 1995 when 7.6% of students nationwide reported carrying a gun during the 30 days preceding the survey (Centers for Disease Control and Prevention, 1996). Forty-four percent of gun-carrying students in Utah indicated they carried a gun six or more days during this period, or 4% of all students. There were no significant differences by the age or grade in which the student was enrolled.

Eleven percent of students reported carrying a weapon at least one day of the past 30 on school property. Nationally, this figure is 9.8% (Centers for Disease Control and Prevention, 1996). Fifty-five percent of these students carried a weapon six or more days out of the past 30 on school property. Again, males were more likely to bring weapons to school than females (18% compared to only 3% of female students).

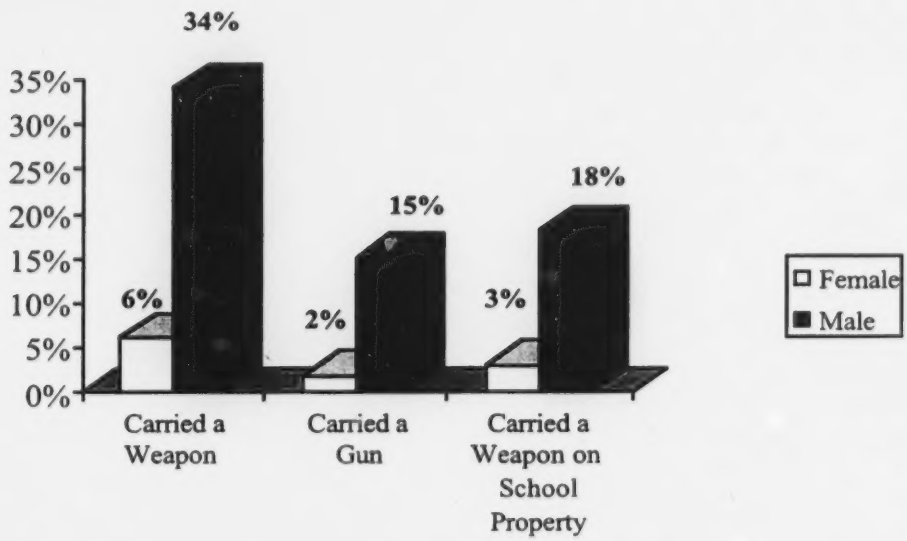


Figure 8. Percentage of Students Who Carried a Weapon, Gun, and/or Carried a Weapon on School Property During the Past 30 Days (Tabulation by Gender)

Eleven percent of students reported carrying a weapon at least one day of the past 30 on school property.

Tobacco, Alcohol, and Drug Use

The use of tobacco is considered the chief preventable cause of death in the United States and accounts for one out of every five deaths (U.S. Department of Health and Human Services, 1994; Office on Smoking and Health, 1989; Centers for Disease Control, 1991). Smoking is linked as a cause of heart disease; cancers of the lung, larynx, mouth, esophagus, and bladder; stroke; and chronic obstructive pulmonary disease. If 29% of the children living in the United States smoke cigarettes as adults, then at least five million will die as a result of smoking-related diseases (Office on Smoking and Health, 1989). Further, smoking is correlated with poor academic performance and the use of alcohol and other drugs (Johnston, O'Malley, and Bachman, 1987).

Cigarette Smoking

Year 2000 Goals

- *Reduce the initiation of cigarette smoking by children and youth so that no more than 15% have become regular cigarette smokers by age 20.*

- *Increase by at least one year the average age of first use of cigarettes, alcohol, and marijuana by adolescents age 12 to 17.*

The use of tobacco is considered the chief preventable cause of death in the United States and accounts for one out of every five deaths (U.S. Department of Health and Human Services, 1994; Office on Smoking and Health, 1989; Centers for Disease Control, 1991). Smoking is linked as a cause of heart disease; cancers of the lung, larynx, mouth, esophagus, and bladder; stroke; and chronic obstructive pulmonary disease. If 29% of the children living in the United States smoke cigarettes as adults, then at least five million will die as a result of smoking-related diseases (Office on Smoking and Health, 1989). Further, smoking is correlated with poor academic performance and the use of alcohol and other drugs (Johnston, O'Malley, and Bachman, 1987).

During the period 1992 to 1995, there were 168,100 smokers in Utah, though 185,400 smokers have quit in the state (Office on Smoking and Health, 1998). During the same period, 1,228 deaths were related to smoking in the state (Office on Smoking and Health, 1998). Rates among males were significantly higher than rates among females (940 deaths among males compared to only 288 among females), and the associated direct medical cost to the state of Utah was $114,000,000 (Office on Smoking and Health, 1998). Seventeen percent of students in Grades 9 through 12 used tobacco in 1992/1993 and 8% of students were frequent users—individuals who smoked 20+ days during one month (Office on Smoking and Health, 1998). Utah ranks second lowest in smoking by students, behind the District of Columbia. The percentage of students smoking in Utah is significantly below the national average of 31% (Office on Smoking and Health, 1998).

In 1997, 42% of students responding to the 1997 YRBS reported they had tried smoking.

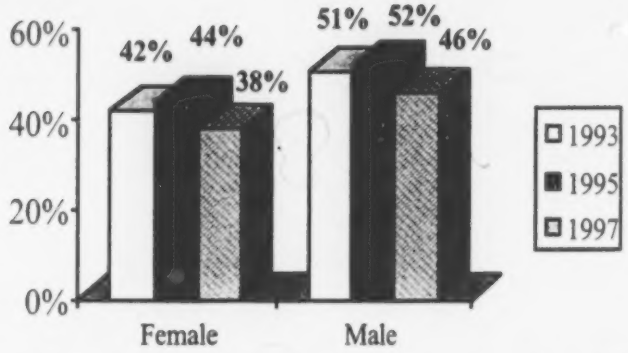


Figure 9. Percentage of Students Who Have Tried Cigarette Smoking (Tabulations by Gender and Year)

Figure 9 presents a summary of Utah students who have tried smoking by gender, reporting the results from 1993, 1995, and 1997.

In 1997, 42% of students responding to the 1997 YRBS reported they had tried smoking. This is significantly below the 1995 U.S. figure of 71% as presented in Figure 10 (Kann, et al., 1996). Males were significantly more likely to have tried smoking than female students (46% compared to only 38%). The percentages of both males and females who reported they had tried cigarette smoking declined slightly from the percentages reported in the 1993 YRBS (when 51% of males and 42% of females reported they had tried smoking cigarettes). The average age among students who smoke a whole cigarette for the first time was 13 years old (with 13% of all students smoking a whole cigarette when they were 12 years of age or younger). This is comparable to the average age reported in the 1991 Utah YRBS.

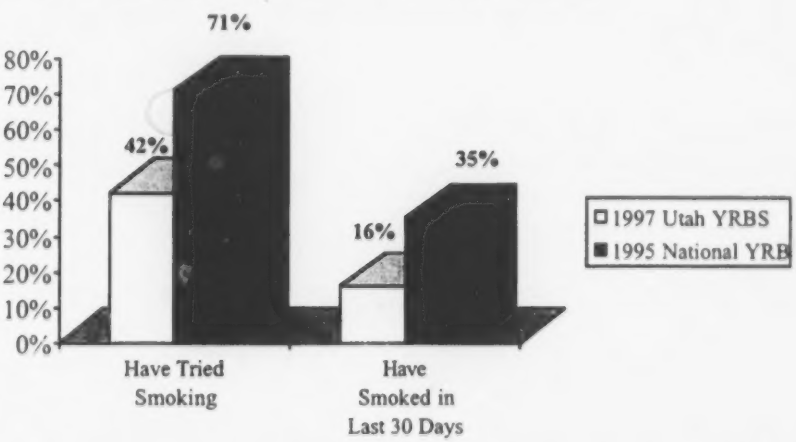


Figure 10. Percentage of Students Who Have Tried Cigarette Smoking and Percent Who Have Smoked in Past 30 Days (Utah and Nationally)

Among students who reported smoking, most (63%) had not smoked during the past 30 days. This means that 16% of Utah students in Grades 9 through 12 smoked during the 30 days preceding the survey. The 16% of Utah students reporting smoking during the 30 days preceding the 1997 YRBS is significantly lower than the 35% of students nationally in 1995 (Kann, et al., 1996). A significant percentage among smokers (17%) reported smoking 20 or more days out of 30. Among those smoking in the last 30 days, the median number of cigarettes smoked per day was between two and five. Most student smokers reported they got their cigarettes by borrowing them from someone else. Only 10% purchased cigarettes at a store (of which only 37% were asked for proof of age). Among smoking students, only 15% reported smoking cigarettes on school property (which represents 7% of all students).

When asked if they had ever attempted to quit smoking, 52% of student smokers indicated they had tried to quit. This percentage is down significantly from the 1991 figure of 61%. Females were more likely to have attempted to quit than males (58% compared to only 47%).

When asked if they had ever attempted to quit smoking, 52% of student smokers indicated they had tried to quit.

Use of Smokeless Tobacco

Year 2000 Goal

- *Reduce smokeless tobacco use by males age 12 to 24 to a prevalence of no more than 4%.*

During 1992/1993, 7% of Utah students in Grades 9 through 12 reported using smokeless tobacco, compared to 12% of students in Grades 9 through 12 nationally (Office on Smoking and Health, 1998). Utah had the fourth lowest rate of smokeless tobacco use when compared to other states and the District of Columbia.

During 1997, only 6% of students reported using chewing tobacco or snuff during the past 30 days. This is comparable to the percentage reported in the 1991 Utah YRBS, indicating use rates have remained constant. Ten percent of males reported using chewing tobacco or snuff during the past 30 days compared to only 3% of females (Figure 11). Among those using these substances, most (65%) had used them at least once during the past 30 days on school property.

Forty-two percent of Utah students have drank alcohol at least once during their lives. Among those who drank alcohol, the average age of their first drink was 12.

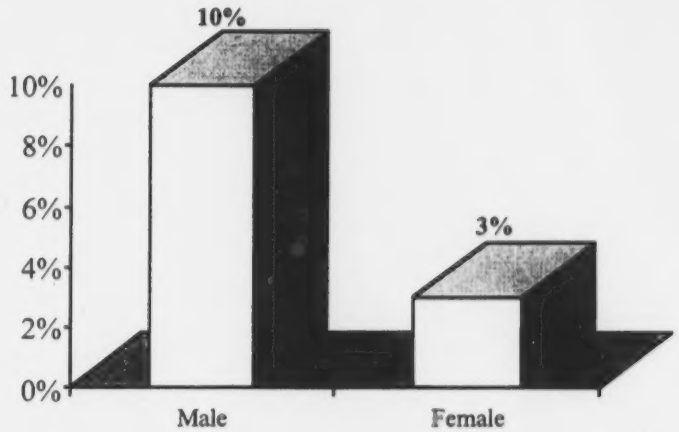


Figure 11. Percentage of Students Who Used Chewing Tobacco or Snuff at Least One Day During the Past 30 Days (Tabulation by Gender)

Alcohol Use

Year 2000 Goals

- *Reduce the proportion of young people who have used alcohol in the past month to 12.6% of youth age 12 to 17 and 29.0% among youth age 18 to 20.*

- *Reduce the proportion of high school seniors and college students engaging in recent occasions of heavy drinking of alcoholic beverages to no more than 28% of high school seniors and 32% of college students.*

Alcohol is considered a major contributing factor in approximately one-half of all homicides, suicides, and motor vehicle crashes (Perrine, Peck and Fell, 1988). In Utah, these are three of the top four causes of death among people age 15 to 24 (Office of Public Health Data, 1996b). Heavy drinking among youth has been linked to physical fighting, damaged or destroyed property, academic and job problems, and trouble with law enforcement authorities (Public Health Service, 1991).

Figure 12 presents a summary of drinking among Utah students by grade.

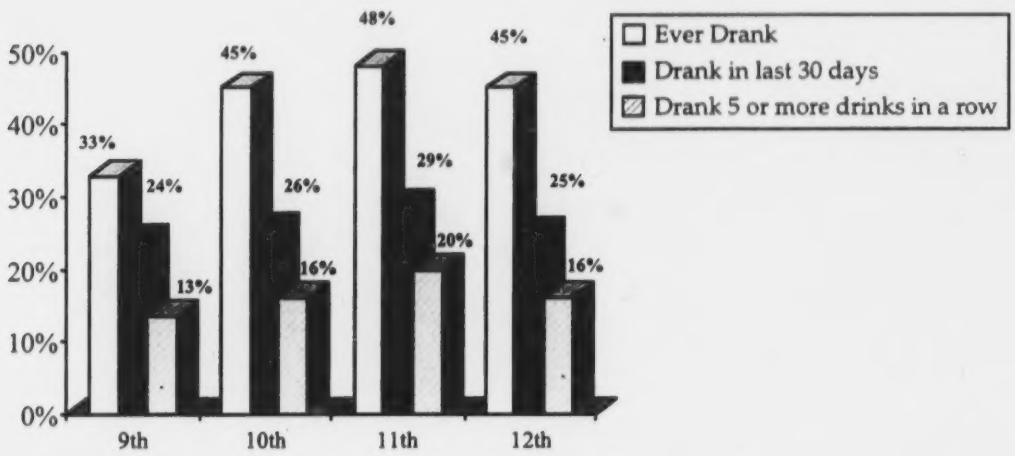


Figure 12. Percentage of Students Who Have Ever Drank Alcohol, Drank Alcohol at Least Once During the Past 30 Days, and Drank Five or More Drinks in a Row on at Least One Day During the Past 30 Days (Tabulation by Grade)

The age of the respondent had an effect of the percentages reporting drinking. The percentage of Utah students reporting they had drank at least once is significantly below the national percentage reported in the 1995 YRBS of 80% (Kann, et al., 1996).

A comparison between Utah and national students is presented in Figure 13. The percentage of students reporting they had never had a drink of alcohol was greatest among 9th grade students (67%) and lowest among 11th grade students (45%).

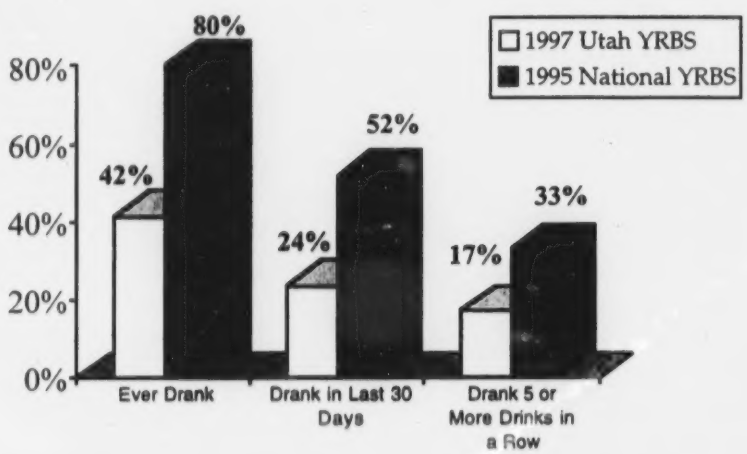


Figure 13. Percentage of Students Who Have Ever Drank Alcohol, Drank Alcohol at Least Once During the Past 30 Days, and Drank Five or More Drinks in a Row on at Least One Day During the Past 30 Days (Utah And Nationally)

Fifty-seven percent of drinking students reported drinking on at least one day during the past 30 days. This represents 24% of all Utah students in Grades 9 through 12.

Eight percent of all students reported drinking 100 or more days during their lifetime. The percentage also increased by grade from 6% of 9th graders to 12% of 12th graders. This percentage among 12th graders has decreased slightly from results reported from the 1991 YRBS (when roughly 14% of 12th graders reported drinking 100 or more days in their life).

Nationally, 51.6% of all students responding to the 1995 YRBS had drank alcohol during the 30 days preceding the survey (Kann, et al., 1996). Thirty-four percent of drinking students drank alcohol on three or more days during the past 30 days (14% of all students). Males tended to drink more frequently during the past 30 days than females.

Of those students who drank alcohol during the past 30 days, 63% reported there was at least one day when they had five or more drinks. This represents 17% of all students in Grades 9 through 12. This is significantly below the national percentage of approximately 33% reported in the 1995 YRBS. Most drinking students (88%) reported there were no instances during the past 30 days when they had a drink on school property.

The Use of Marijuana and Other Drugs

Year 2000 Goals

- *Increase by at least one year the average age of first use of cigarettes, alcohol, and marijuana by adolescents age 12 to 17.*
- *Reduce the percentage of young people who have used alcohol, marijuana, and cocaine in the past month as follows: Marijuana use—3.2% of youth age 12 to 17 and 7.8% of youth age 18 to 25. Cocaine use—0.6% of youth age 12 to 17 and 2.3% of youth age 18 to 25.*
- *Reduce to no more than 3% the proportion of male high school seniors who use anabolic steroids.*

One in every four adolescents in this country is estimated to be at

high risk for the consequences of alcohol and other drug problems (Dryfoos, 1987). In addition to the morbidity and mortality due to injury, drug abuse is related to early unwanted pregnancy, school failure, delinquency, and the transmission of sexually transmitted diseases (Blanken, 1993). Illicit use of drugs is greater among students and other young adults in the United States than other industrialized nations in the world (Johnston, O'Malley, and Bachman, 1989).

Figure 14 summarizes marijuana use among Utah students in 1993, 1995, and 1997. Comparisons to national results are presented in Figure 15.

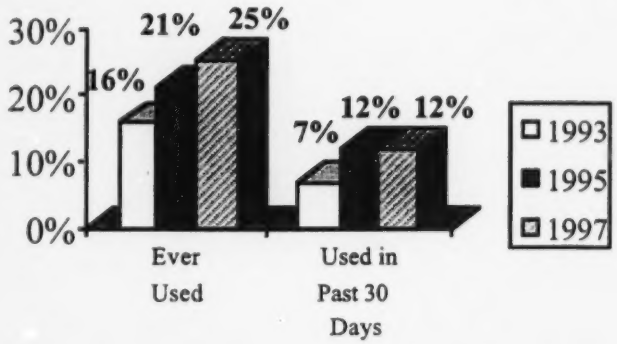


Figure 14. Percentage of Students Who Have Ever Tried Marijuana and Percentage Who Have Used Marijuana at Least Once in the Past 30 Days (1993 , 1995, and 1997 Results)

Twenty-five percent of Utah students in 1997 reported they had tried marijuana, compared to 42% nationally (Kann, et al., 1996). This percentage has increased from the 16% reporting they tried marijuana during the 1993 YRBS and 21% in 1995. The average age when they first tried marijuana was 14. Among those who tried marijuana, 50% have used marijuana 20 or more times during their life. Males were slightly more likely to report having tried marijuana 100 or more times than females (29% of males who tried marijuana compared to only 21% of females).

Fifty percent of marijuana users had used marijuana at least once during the past 30 days. This represents 12% of all students in Grades 9 through 12. This percentage is up significantly from the 1993 Utah YRBS result of 7% of all students reporting use in the past 30 days. It is comparable to the 1995

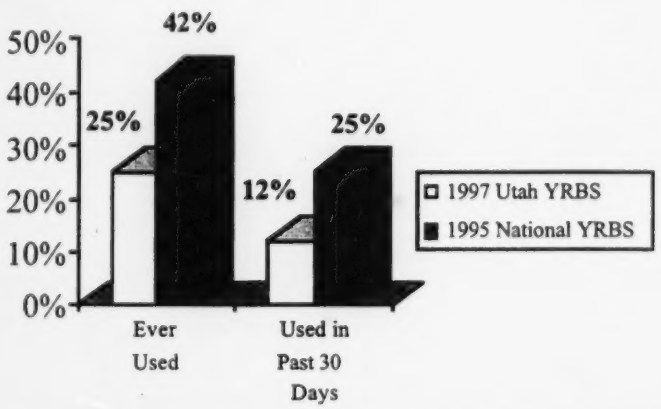


Figure 15. Percentage of Students Who Have Ever Tried Marijuana and Percentage Who Have Used Marijuana at Least Once in the Past 30 Days (Utah and Nationally)

Seventeen percent of students have sniffed glue or breathed the contents of aerosol spray cans to get high with most doing so nine or fewer times in their life. Twelve percent of students reported using illegal drugs, such as LSD, PCP, ecstasy, mushrooms, speed, ice, or heroin.

percentage. The percentage of use during the past 30 days among Utah students is significantly lower than the national figure of 25.3% (Kann, et al., 1996). Only 38% of those using marijuana during the past 30 days did so on school property, down from 43% reporting use on school property in the 1993 YRBS.

Six percent of respondents to the 1997 YRBS reported using cocaine in their lifetime, with an average age of first use of 13.

Table 1 presents a summary of use of cocaine and other drugs. Nationally, 7% of students reported they had used some form of cocaine in their lifetime (Kann, et al., 1996). The percentage of students reporting cocaine use in the 1997 YRBS is comparable to the percentage reported in the 1991 YRBS. Among cocaine users, a significant percentage (28%) have used cocaine 20 or more times during their life. Over half (53%) of those who had tried cocaine had used cocaine during the past month (3% of all students). The percentage of students using cocaine during the past 30 days is comparable to 1991 (when 2% reported using cocaine in the past 30 days). The percentage of students who have used crack or freebase at least once during their life

TABLE 1. Percentage of Students Using Cocaine and Other Drugs Tabulated by Ethnic Origin

	OVERALL %
Use of Cocaine at Least Once in Their Life	7%
Use of Cocaine at Least Once in Past 30 Days	3%
Sniffed Glue or Breathed Content of Aerosol Spray Can at Least Once in Their Life	17%
Taken Illegal Drugs Such as LSD, PCP, Ecstasy, Mushrooms, Speed, Ice, or Heroin at Least Once in Their Life	12%
Used a Needle to Inject an Illegal Drug into Their Body at Least Once in Their Life	3%
Have Taken Steroid Pills or Shots Without a Doctor's Prescription at Least Once in Their Life	4%

Only three percent of students indicated they had used a needle to inject an illegal drug into their body, down from 7% in 1991.

Twenty-seven percent of students reported they had been offered, sold, or had been given an illegal drug on school property.

Only four percent of students reported they had ever used steroid pills or shots without a doctor's prescription, comparable to the national figure from 1995 (Center for Disease Control and Prevention, 1996).

The percentage of 12th grade males using steroids (approximately 5%) is well above the stated year 2000 goal of 3% use among this group, though the percentage has decreased from the 1991 percentage of just over 6%.

Sexual Behavior and AIDS/HIV Infection Education

Early sexual activity is associated with unwanted pregnancy and occurrences of sexually transmitted diseases (STDs), including HIV infection. It also has a negative impact on social and psychological development. The use of alcohol or other drugs may serve as predisposing factors for the initiation of sexual activity and unprotected sexual intercourse (Hofferth and Hayes, 1987). Nationwide, 53.1% of all high school students reported they had sexual intercourse at least once during their lifetime and 37.9% had engaged in sexual intercourse during the past three months (Kann, et al., 1996).

Sexual Behavior and AIDS/HIV Infection Education

Year 2000 Goals

- *Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15% by age 15 and no more than 40% by age 17.*

- *Increase to at least 40% the proportion of ever sexually active adolescents age 17 and younger that have abstained from sexual activity for the three previous months.*

Early sexual activity is associated with unwanted pregnancy and occurrences of sexually transmitted diseases (STDs), including HIV infection. It also has a negative impact on social and psychological development. The use of alcohol or other drugs may serve as predisposing factors for the initiation of sexual activity and unprotected sexual intercourse (Hofferth and Hayes, 1987). Nationwide, 53.1% of all high school students reported they had sexual intercourse at least once during their lifetime and 37.9% had engaged in sexual intercourse during the past three months (Kann, et al., 1996).

AIDS represents the seventh leading cause of years of potential life lost before the age of 65 in the United States and is the sixth leading cause of youth age 15 to 24 (Centers for Disease Control, 1989; National Center for Health Statistics, 1993). Among the 12 million new cases of STD per year, 86% occurs among people age 15 to 29 (Division of Sexually Transmitted Diseases/HIV Prevention, 1992). STD may result in infertility, adverse effects of pregnancy outcome and maternal and child health, and facilitation of HIV transmission (Morris, Warren, and Aral, 1993). Education is one method of reaching out to students in an effort to limit the impact of STD.

The 1997 YRBS did not ask students directly about their sexual behaviors; only perceptual measures of risk were obtained from students. Summaries of AIDS/HIV data indicate that as of 1994, there were 927 AIDS cases in Utah and 780 HIV cases with 518 AIDS patients deceased since 1983 (Bureau of Surveillance and Analysis, 1998). The mortality rate among males is significantly higher than among females in Utah: Seven deaths per 100,000 compared to 0.5 deaths per 100,000 among females (Bureau of Surveillance and Analysis, 1998b).

Eighteen percent of the students responding to the 1997 YRBS indicated they had done something to put them at risk for getting AIDS/HIV infection.

Eighteen percent of the students responding to the 1997 YRBS indicated they had done something to put them at risk for getting AIDS/HIV infection. This percentage is comparable to the percentage reported by students in the 1991 YRBS. Figure 16 presents a summary of the percentage of students who considered themselves at risk by grade. There was a significant relationship between the age of the student and incidence of risk. Ninth grade students were the least likely to report they had done something to put themselves at risk (12%), while 12th graders were the most likely group (23% reporting they had done something to put themselves at risk).

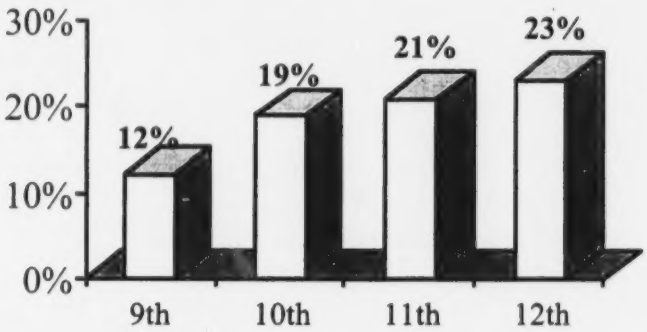


Figure 16. Percentage of Students Who Reported They Had Done Something to Put Themselves at Risk for Getting AIDS/HIV Infection (Tabulation by Grade)

Nearly all students (91%) reported they had been taught about AIDS or HIV infection in school (Figure 17). This is a significant increase from the 81% reported in the 1993 YRBS and 86% reported in 1995. It is also slightly higher than the national percentage of 86% reported from 1995 (Kann, et al., 1996).

Nearly two-thirds (61%) reported they had talked about AIDS/HIV infection with their parents or other adults in the family. This is a significant increase in the percentage reported by students during the 1993 YRBS (when 55% reported speaking with their parents or another adult family member). Female students were more likely to speak with an adult family member than male students were (65% compared to 57%).

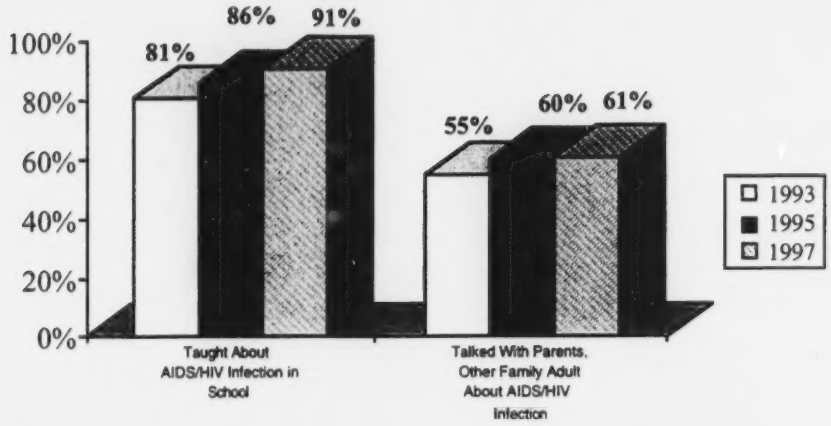


Figure 17. Percentage of Students Who Reported They Had Been Taught About AIDS/HIV Infection in School or Had Ever Talked With Their Parents or Other Family Adults About HIV Infection (Tabulation by Year of YRBS)

Dietary Behaviors

Obesity and extreme obesity appear to be increasing among adolescents age 12 to 17, up as much as 39% and 64%, respectively (Gortmaker, Dietz, Sobol, and Wehler, 1987). The percentage of children and adolescents who are overweight has more than doubled in the past 30 years with most of this increase occurring since the late 1970s. (Troiano et al., 1995). In 1990, 23% of Utah residents were considered obese (Utah Department of Health, 1985-1990). Obese children and adolescents are more likely to become obese adults (Casey et al, 1992; Guo et al., 1994). Overweight adults are at increased risk for heart disease, high blood pressure, stroke, diabetes, some types of cancer, and gallbladder disease (Public Health Service, 1988).

Dietary Behaviors

Year 2000 Goals

- *Reduce overweight to a prevalence of no more than 15% among adolescents age 12 to 19.*

- *Increase to at least 50% the proportion of overweight people age 12 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.*

Obesity and extreme obesity appear to be increasing among adolescents age 12 to 17, up as much as 39% and 64%, respectively (Gortmaker, Dietz, Sobol, and Wehler, 1987). The percentage of children and adolescents who are overweight has more than doubled in the past 30 years with most of this increase occurring since the late 1970s. (Troiano et al., 1995). In 1990, 23% of Utah residents were considered obese (Utah Department of Health, 1985-1990). Obese children and adolescents are more likely to become obese adults (Casey et al, 1992; Guo et al., 1994). Overweight adults are at increased risk for heart disease, high blood pressure, stroke, diabetes, some types of cancer, and gallbladder disease (Public Health Service, 1988). In addition to the physical consequences, obese children and adolescents often experience social and psychological stress related to obesity (Rotatori and Fox, 1989). Obesity in adolescence has been related to depression, problems in family relations, and poor school performance (Stein, 1987). Overemphasis on thinness during adolescence may contribute to eating disorders, such as bulimia and anorexia nervosa (Herzog and Copeland, 1985; Mitchell and Eckert, 1987). Adolescent females represent a high-risk population for the development of these two health problems and compose 90% to 95% of all patients with eating disorders (American Psychiatric Association, 1987).

When asked how they would describe their weight, 56% of respondents to the 1997 YRBS indicated they were about the right weight, 20% felt they were underweight, and 24% felt they were overweight (Figure 18). Nationwide, 28% of students responding to the 1995 YRBS felt they were overweight (Kann, et al., 1996). Females were more likely to consider themselves overweight than males (34% compared to 15% of males).

When asked how they would describe their weight, 56% of respondents to the 1997 YRBS indicated they were about the right weight, 20% felt they were underweight, and 24% felt they were overweight.

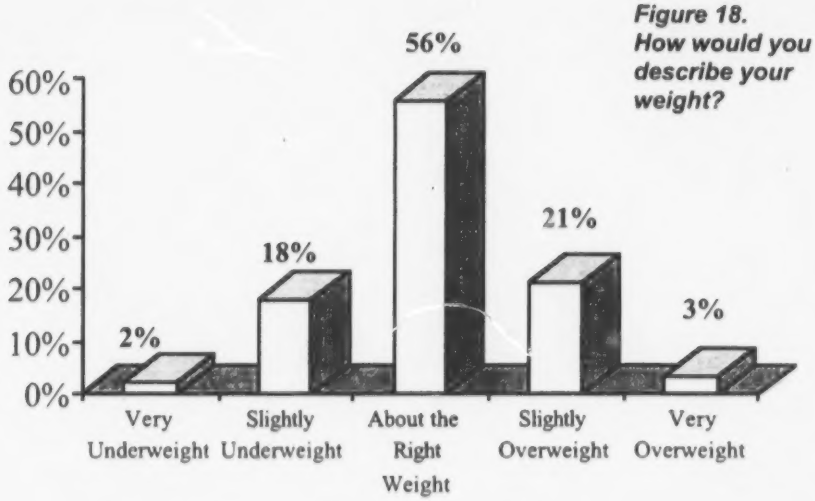


Figure 18. How would you describe your weight?

Thirty-nine percent of students indicated they were attempting to lose weight (63% of female respondents and only 16% of male students). Twenty-seven percent of students reported they had dieted during the past 30 days (43% of females and 11% of males).

The percentage of students attempting to lose weight is comparable to the percentage reported in the 1991 YRBS. It is also comparable to the 1995 national figure of 41% (Kann, et al., 1996). Among students who described themselves as overweight, 77% indicated they were trying to lose weight. Thirty-three percent of students who indicated they were about the right weight were trying to lose weight, as were 11% who indicated they were underweight. Table 2 presents a summary of activities undertaken by students during the 30 days preceding the survey to lose weight or to keep from gaining weight. The percentages represent the percentage of all female and male students.

The overall percentage represents the percentage of all students reporting the activity. In each case, females were significantly more likely to have done the specified activity than males. Of particular concern is the percentage of females who reported vomiting and taking diet pills during the past 30 days.

In 1991, only 7% of female respondents reported vomiting, taking diet pills, or both, to lose weight. In 1997, this figure was 18% (6% reported vomiting, 7% took diet pills, and 5% of female students did both). The percentages of ethnic minority students indicating they had vomited or taken diet pills during the past 30 days were also significantly greater than the percentages among Caucasian students. The percentages for diet pill use were 15% and 6%, respectively.

TABLE 2. Activities during the past 30 days to lose weight or keep from gaining weight

Activity	% of Females Reporting	% of Males Reporting	% Overall
Diet	43%	11%	27%
Exercise	75%	32%	53%
Vomit	11%	3%	7%
Take Diet Pills	12%	2%	7%

Nutritional Habits

Year 2000 Goals

- *Reduce dietary fat intake to an average of 30% of calories or less and average saturated fat intake to less than 10% of calories among people age 2 and older.*

- *Increase complex carbohydrates and fiber-containing foods in the diets of adults to five or more daily servings for vegetables and fruits and six or more daily servings for grain products.*

Based on their consumption of these food items, 47% of students consumed five or more servings of fruits and vegetables the day preceding the 1997 YRBS.

Americans currently consume more than 36% of their calories from fat. High fat diets, which are associated with increased risk of obesity, heart disease, some types of cancer, and other chronic conditions, often are consumed at the expense of foods high in complex carbohydrates and dietary fiber, considered more conducive to health (Public Health Service, 1988). Because lifetime dietary patterns are established during youth, adolescents should be encouraged to choose nutritious foods and to develop healthy eating habits (Select Panel for the Promotion of Child Health, 1981).

Table 3 presents a summary of the number of times selected food items were consumed by students on the day preceding the 1997 YRBS. Most students (71%) had eaten fruit, while one-half reported eating cooked vegetables. The percentage reporting eating fruit increased significantly from the percentage in 1991 when 60% reported eating fruit at least once on the day preceding the 1991 YRBS. There was a downward trend observed among students based on their grade level when it came to the consumption of fruit. While 74% of 9th grade students ate fruit at least once on the day preceding the 1997 YRBS,

only 68% of 12th grade students did so. Male students were more likely to have drunk fruit juice than female students were (72% compared to 65%). By combining these figures, it is possible to estimate the percentage of students who consumed five or more servings of fruits and vegetables per day.

Based on their consumption of these food items, 47% of students consumed five or more servings of fruits and vegetables the day preceding the 1997 YRBS. This is significantly greater than the 1995 national figure of 28% (Kann, et al., 1996).

Only 40% reported eating a hamburger, hot dog, or sausage the preceding day. However, a majority of students reported consuming french fries or potato chips or a cookie, doughnut, pie, or cake at least once during the preceding day (51% and 61%, respectively). These percentages are comparable to those reported in the 1991 YRBS. Male students were more likely to have eaten a hamburger, hot dog, or sausage than female students were (48% compared to 30%). Females were less likely to report eating french fries or potato chips (47% compared to 56% for males). Females were also less likely to have eaten cookies, doughnuts, pies, or cakes (55% compared to 66% for male students).

TABLE 3. Yesterday, how many times did you...?

	% of All Students Reporting			
	0 Times	1 Time	2 Times	3 or More Times
Eat Fruit	29%	30%	25%	16%
Drink Fruit Juice	31%	35%	18%	15%
Eat Green Salad	66%	29%	4%	1%
Eat Cooked Vegetables	50%	37%	10%	3%
Eat Hamburger, Hot Dogs, or Sausage	60%	27%	9%	3%
Eat French Fries or Potato Chips	49%	39%	10%	2%
Eat Cookies, Doughnuts, Pie, or Cake	39%	39%	14%	7%

Physical Activity and Inactivity

A number of benefits are associated with regular physical activity. Physical activity helps build and maintain healthy bones and muscles; control weight, build lean muscle, and reduce fat; and reduce feelings of depression and anxiety and promote psychological well-being (Centers for Disease Control, 1996). Physical inactivity and poor diet together account for at least 300,000 deaths in the United States each year (McGinnis and Foege, 1993). In addition, physical inactivity increases the risk of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure (Kann, et al., 1996).

Physical Activity

Year 2000 Goals

- *Increase to at least 30% the proportion of people age 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day.*

- *Increase to at least 75% the proportion of people age 6 to 17 who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness three or more days per week for 20 or more minutes per occasion.*

- *Reduce to no more than 15% the proportion of people age 6 and older who engage in no leisure time physical activity.*

- *Increase to at least 40% the proportion of people age 6 and older who regularly perform physical activities that enhance and maintain muscular strength, muscular endurance, and flexibility.*

A number of benefits are associated with regular physical activity. Physical activity helps build and maintain healthy bones and muscles; control weight, build lean muscle, and reduce fat; and reduce feelings of depression and anxiety and promote psychological well-being (Centers for Disease Control, 1996). Physical inactivity and poor diet together account for at least 300,000 deaths in the United States each year (McGinnis and Foege, 1993). In addition, physical inactivity increases the risk of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure (Kann, et al., 1996).

National statistics indicate that nearly half of young people age 12 to 21 do not engage in vigorous physical activity on a regular basis (Adams et al., 1995). There was a significant decrease in the percentage engaging in vigorous physical activity among older adolescents and young adults. Regular participation in vigorous physical activity has been reported by 69% of young people age 12 to 13 but only 38% of those aged 18 to 21 (Adams, et al., 1995). Seventy-two percent of 9th graders participate in vigorous physical activity on a regular basis, compared with only 55% of 12th graders (Kann et al., 1996).

Most students responding to the 1997 YRBS (71%) reported engaging in exercise or participating in sports activities for at least 20 minutes three or more days of the last seven.

Table 4 presents a summary of physical activity among Utah students. This percentage is comparable to the 72% of students reporting they engaged in strenuous exercise in the 1991 YRBS. The percentage is slightly higher than the national figure from the 1995 YRBS of approximately 64%. The percentage for Utah is slightly below one of the stated goals for the year 2000. Significantly more males participated in strenuous activity three or more days of the last seven than female students did (78% compared to 64%). Twenty-three percent of male students reported engaging in strenuous physical activity all seven days, compared to 10% of female students. Trendwise, the higher the grade level, the greater the percentage of students who did <u>not</u> participate in any strenuous physical activity and the smaller the percentage participating in such activity three or more days out of the past seven. Seven percent of 9th grade students reported they did not participate in any strenuous exercise during the past seven days, compared to 18% of 12th graders. The percentages reporting they participated in such activity three or more days out of the past seven were 78% and 62%, respectively.

TABLE 4. On how many of the past seven days did you do...

	% of All Students Reporting							
	0 Days	**1 Day**	**2 Days**	**3 Days**	**4 Days**	**5 Days**	**6 Days**	**7 Days**
Hard Exercise	12%	8%	9%	13%	12%	17%	12%	17%
Stretching	22%	13%	11%	11%	9%	13%	6%	13%
Toning Exercise	24%	10%	13%	14%	10%	13%	6%	11%
Bicycle or Walk for 30 Minutes	37%	15%	12%	10%	7%	7%	3%	8%

Participation in Physical Education Classes

Year 2000 Goals

- *Increase to at least 50% the proportion of children and adolescents in 1st through 12th grade who participate in daily school physical education.*

- *Increase to at least 50% the proportion of school physical education class time that students spend being physically active, preferably engaged in lifetime physical activities.*

Fifty-three percent of Utah students reported attending a physical education class at least once a week in an average school week. Thirty percent attended physical education classes five days in an average week.

Forty percent of U.S. high school students were not enrolled in a physical education class; 19% of 9th graders and 58% of 12th graders were not enrolled (Kann et al., 1996). Nationally, the percentage of students not enrolled in a daily physical education class has been increasing from 58% in 1991 to 75% in 1995 (Kann et al., 1996; Centers for Disease Control and Prevention, 1992). During 1991, 19% of students enrolled in a physical education class reported that they did not exercise for 20 or more minutes in an average physical education class (Centers for Disease Control and Prevention, 1992). This figure rose to 30% in 1995 (Kann et al., 1996). In 1995, only 19% of all high school students were physically active for at least 20 minutes in a daily physical education class (Kann et al., 1996).

Fifty-three percent of Utah students reported attending a physical education class at least once a week in an average school week. Thirty percent attended physical education classes five days in an average week (Figure 19).

Male students were more likely not only to be enrolled in physical education classes (59% compared to 46% of female students) but were also more likely to attend physical education classes five days in an average week (34% of all male students, compared to only 27% of female students). The grade in which a student was enrolled influenced not only enrollment in physical education classes but also the frequency of attendance during the week (Figure 20). While 62% of 9th grade students were enrolled in a physical education class, only 32% of 12th grade students were enrolled. Fifty-eight percent of 9th grade students attended physical education classes five days in a typical week, compared to only 15% of 12th grade students.

Among those attending physical education classes, most (56%) indicated they spent 30 or more minutes actually exercising or playing sports (66% of males and 45% of females attending these classes).

Forty-two percent of students were involved with at least one sports team run by their school and 49% were involved with sports teams run by organizations outside of their school.

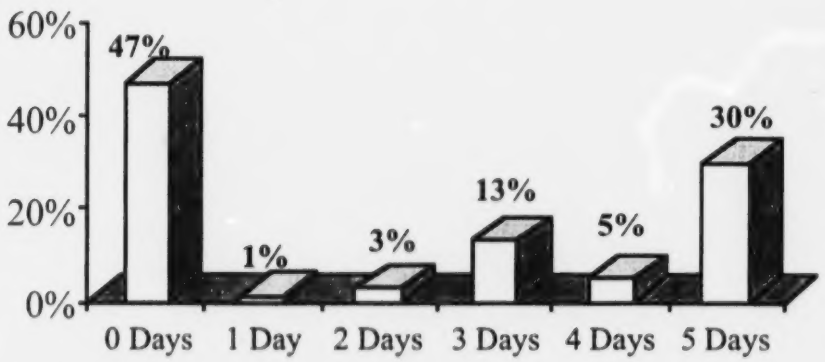


Figure 19. In an average week when you are in school, on how many days do you go to physical education classes?

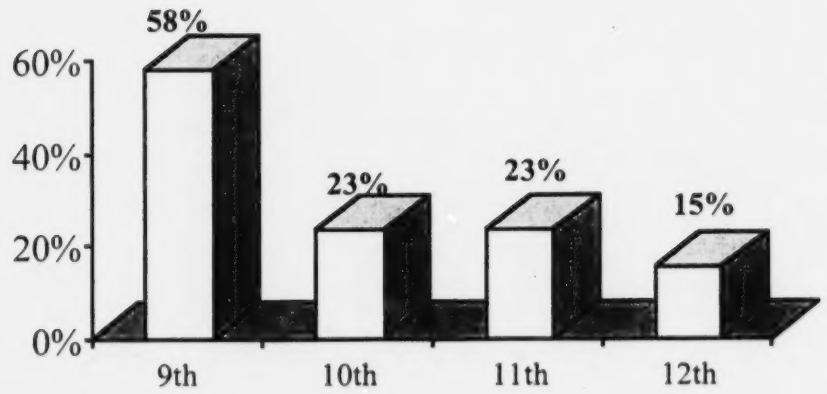


Figure 20. Percentage of Students Attending a Physical Education Class Five Days a Week (Tabulation by Grade)

1996 School Health Education Profile Survey

The School Health Education Profile (SHEP) survey is administered every two years among both school principals and health education teachers. The survey instruments used in this research were written and sponsored by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention, and Centers for Disease Control and Prevention in collaboration with representatives from 75 state, local, and territorial departments of education. The questionnaires are designed to monitor the current status of health education in schools teaching any of Grades 6 through 12. Two different survey instruments were used during the 1996 SHEP. The principals' questionnaire examined health education and AIDS/HIV infection prevention from an administrative point of view. A longer version was sent to health education teachers. That version focused on health education from an instructional perspective.

Sample Population and Methods

All regular public schools, which taught any of Grades 6 through 12 (with a regular enrollment of at least 20 students), and alternative education schools covering any of these grades were included in the sampling frame (Figure 21). Within each school, the principal was asked to complete the principal questionnaire. Each school was then asked to identify its leading health education teacher, who was then sent the health education teacher version of the questionnaire. A total of 263 schools were selected to participate in the SHEP survey. Surveys were mailed to each of these 263 schools during the spring of 1996. The results of the 1996 SHEP are based on 495 completed survey forms. A total of 232 principals (a response rate of 88%) and 263 teachers (100%) completed and returned survey forms.

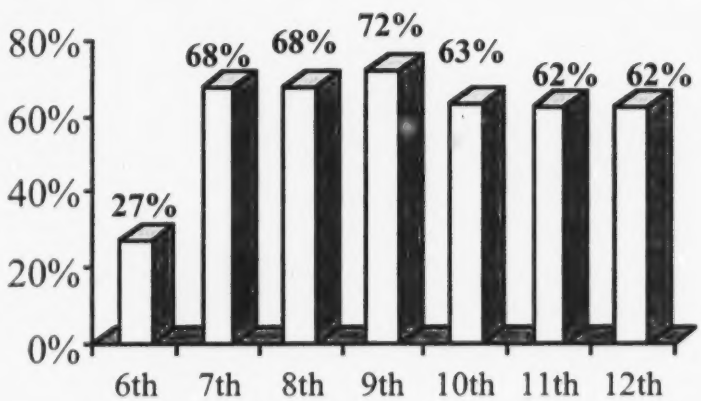


Figure 21. Which grade(s) are taught in your school?

School Health Education Requirements

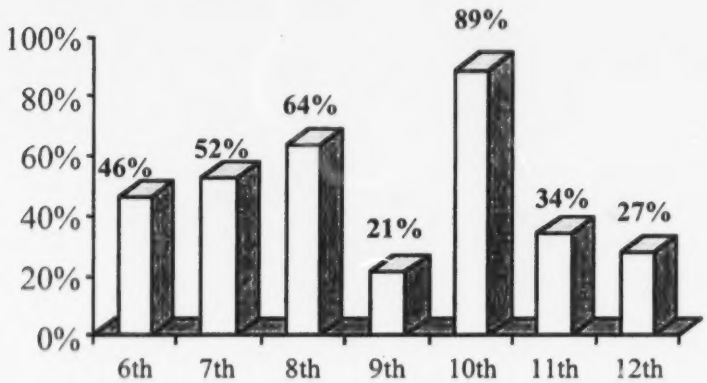


Figure 22. Percentage of Schools Teaching a Required Health Education Course by Grade (of those which teach that grade)

Overall, 98% of principals and 96% of teachers indicated that a health education course was required in at least one grade in their school. Figure 22 presents a summary of health education courses taught by grade. Among all grades, health education was taught most frequently in 8th and 10th grades, though there was some variation depending on the type of school (Table 5). The number of courses and time required for health education is summarized in Figures 23 and 24. Sixty-two percent of schools reported students were required to take one health education course, though 30% of schools reported students took two or more health education courses. Nearly two-thirds (65%) required a half year of health education, though 30% required one or more years.

TABLE 5. Percentage of Schools Teaching a Required Health Education Course by School Type

	GRADE						
School Type	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Middle School (6-8)	48%	77%	53%	-	-	-	-
Junior High (7-9)	-	35%	70%	10%	-	-	-
High School (9-12)	-	-	-	32%	86%	32%	32%
High School (10-12)	-	-	-	-	95%	24%	15%

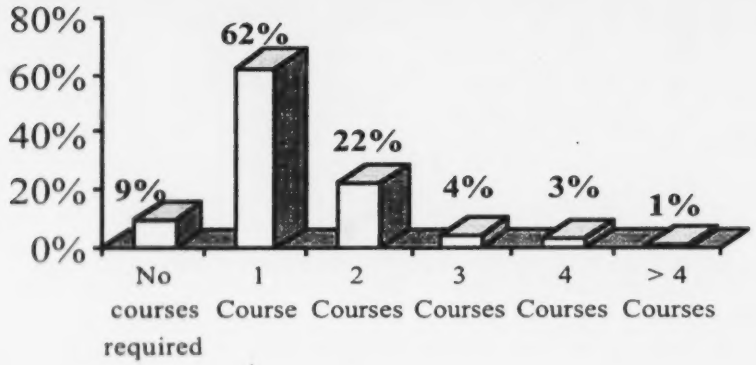


Figure 23. How many separate health education courses are students required to take in this school?

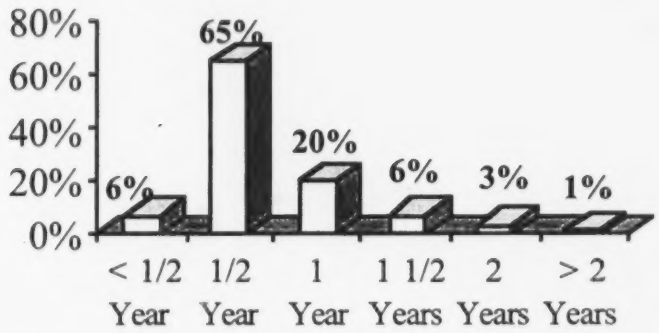


Figure 24. Approximately how much required health education do students receive in this school?

Ninety-seven percent of principals indicated that a separate required health education class was taught in their school and 77% indicated that units and lessons on health were also integrated into other subjects (Figure 25). Thirty-eight percent indicated required health education was also taught in nonclassroom programs or activities. Figure 26 summarizes the types of materials teachers are required to use in teaching health education. Among health education teachers, 96% indicated they were required to use state curriculum, guidelines, or framework in required health education courses. Seventy-nine percent and 50% indicated they were required to use district and school curriculum, respectively, in health education. Less than half of the health education teachers indicated they were required to use a commercially developed health education curricula or teacher's guides to student textbooks (33% and 41%, respectively).

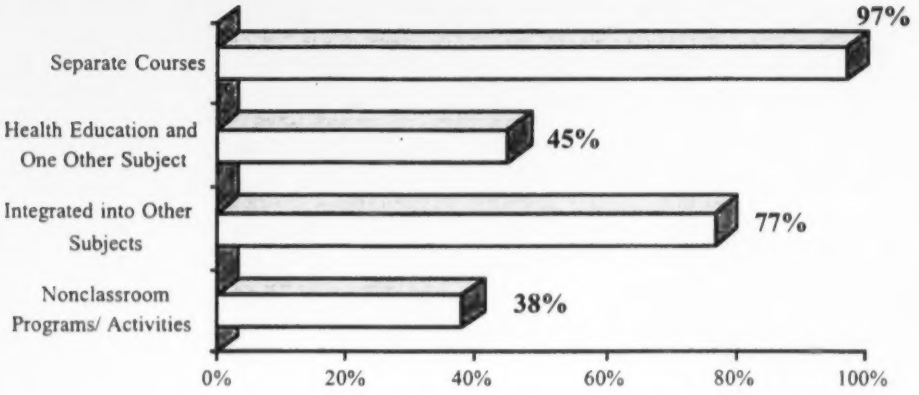


Figure 25. Is required health education taught in any of the following ways to students? (percent reporting "yes")

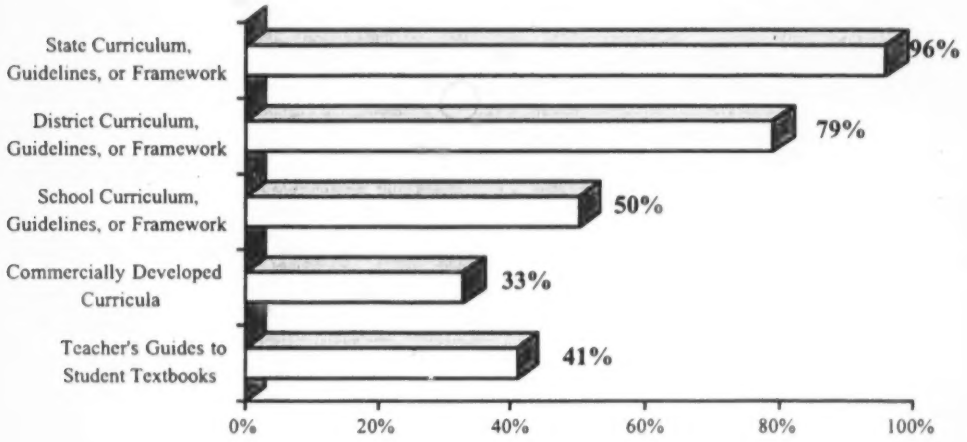


Figure 26. Are teachers in this school required to use any of the following materials in a required health education course(s) for students? (percent reporting "yes")

TABLE 6. Graduation Requirements	YES	NO
Is health education required for graduation or promotion?	83%	17%
If students fail a required health education course, are they required to take the course again?	59%	41%

Health Education was required for graduation or promotion in 83% of Utah schools (Table 6). In addition, 59% of principals indicated that students who failed a required health education course were required to take the course again. Seventy-one percent of principals indicated that students could be exempted or excused by parental request from all or parts of a required health education. Nearly all schools (88%) indicated that less than 1% of students were actually exempted or excused.

Health education teachers planned or coordinated health-related programs or activities with a number of groups both within and from outside the school. Figure 27 presents a summary of these groups and the percentage of teachers indicating they had coordinated health-related activities with these groups. Nearly two-thirds (61%) had planned or coordinated activities or programs with physical education teachers. Over half reported similar coordination of activities with other teachers, school counseling services, and volunteer health organizations.

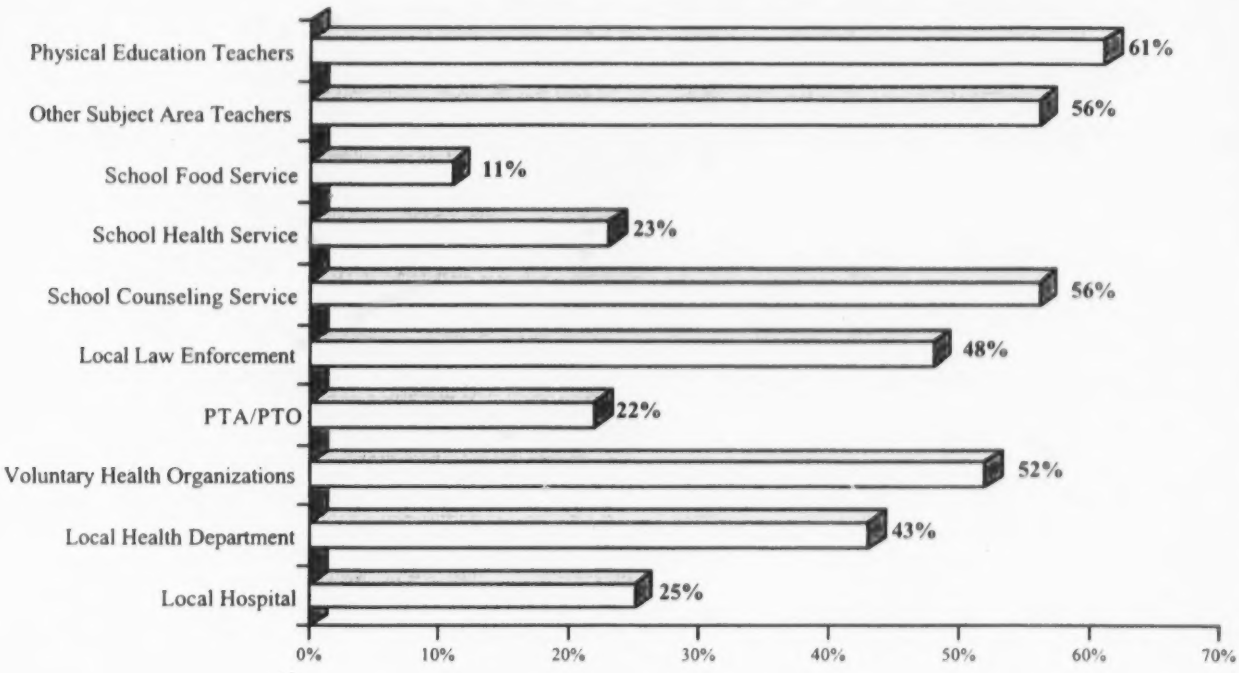


Figure 27. During this school year, have health education teachers planned or coordinated health-related projects or activities with any of the following groups? (percent reporting "yes")

Health education teachers indicated they tried to increase the level of knowledge and improve student attitudes on a variety of health issues in required health education courses. Table 7 presents a summary of these health issues. In most cases, over 80% of teachers indicated they had both tried to improve knowledge and attitudes among students. Those issues below 80% were death and dying, environmental health, dental and oral health, sexual harassment, pregnancy prevention, and community health. Health education teachers also taught a number of skills to students in health education courses. These

are summarized in Figure 28. In most cases, over 90% of health education teachers indicated these skills were taught in a required health education course. The two exceptions were nonviolent conflict resolution and analysis of media messages (reported by 83% and 71% of teachers, respectively).

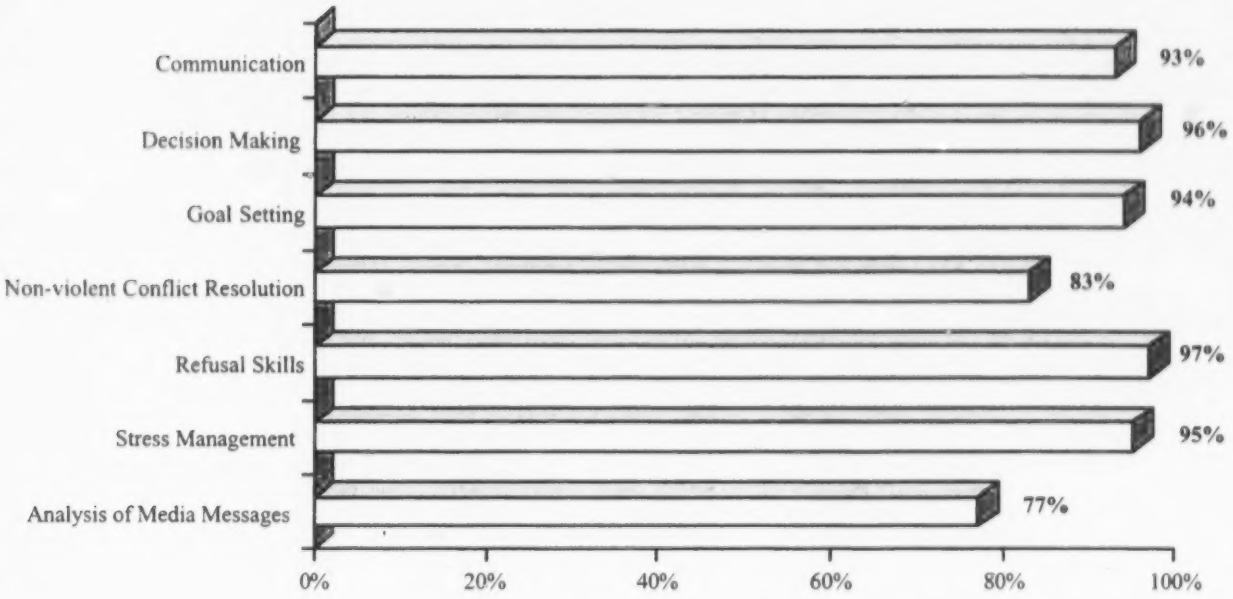


Figure 28. During this school year, have teachers taught any of the following skills in required health education courses? (percent reporting "yes")

TABLE 7. During this school year, have teachers tried to increase student knowledge/improve student attitudes on the following topics in a required health education course? (percent indicating "yes")

	Tried to Increase Student Knowledge	Tried to Improve Student Attitudes
Alcohol and other drug use prevention	99%	99%
Chronic diseases such as diabetes and asthma	85%	80%
Community health	79%	79%
Conflict resolution/violence prevention	87%	90%
Consumer health	81%	86%
CPR	81%	82%
Death and dying	69%	73%
Dental and oral health	71%	76%
Dietary behaviors and nutrition	98%	97%
Disease prevention and control	98%	98%
Emotional and mental health	98%	99%
Environmental health	70%	76%
First aid	85%	84%
Growth and development	94%	92%
HIV prevention	95%	96%
Human sexuality	89%	88%
Injury prevention and safety	84%	88%
Personal health	96%	98%
Physical activity and fitness	95%	96%
Pregnancy prevention	75%	79%
Reproductive health	84%	83%
Sexual harassment	74%	80%
STD prevention	93%	92%
Suicide prevention	85%	90%
Tobacco use prevention	97%	96%

AIDS/HIV Infection Education

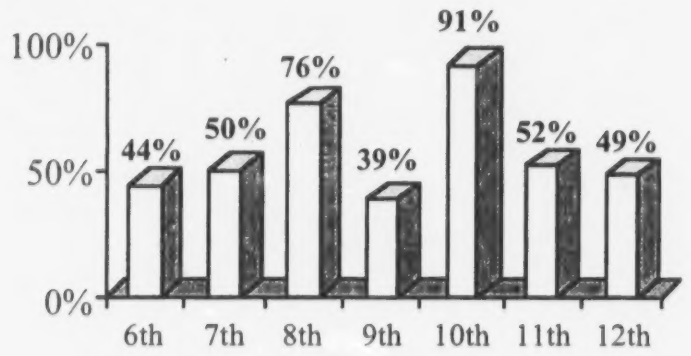


Figure 29. Percentage of Schools Teaching Required AIDS/HIV Infection Units or Lessons by Grade (of those which teach that grade)

Eighty-three percent of principals and 93% of health education teachers indicated AIDS/HIV infection education was required for students and/or part of a required health education course in their school. Among all grades, AIDS/HIV infection education was taught most frequently in 8th and 10th grades, as summarized in Figure 29. Table 8 presents a summary by type of school. Among those with AIDS/HIV infection education, nearly all principals (99%) reported that AIDS/HIV infection units or lessons were taught in health education classes. Other courses where AIDS/HIV infection units were taught by a sizable percentage of schools included Biology (45%), Family Life (40%), and home economics courses (35%). Only 17% reported that AIDS/HIV infection units or lessons were taught in physical education classes.

TABLE 8. Percentage of Schools Teaching Required AIDS/HIV Infection Units or Lessons by School Type

	GRADE						
School Type	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Middle School (6-8)	44%	67%	74%	-	-	-	-
Junior High (7-9)	-	37%	77%	30%	-	-	-
High School (9-12)	-	-	-	58%	99%	54%	54%
High School (10-12)	-	-	-	-	100%	41%	32%

Table 9 presents a summary of AIDS/HIV infection topics that were covered in required health education courses in Utah schools. In most cases, each of these topics was taught in 80% or more schools (as reported by health education teachers). There were only four instances in which less than 80% of schools taught a specific topic. Seventy-eight percent of teachers reported covering group behaviors (social norms) toward risk behaviors. Seventy-six percent of teachers indicated the school taught about (and provided information on) HIV testing and counseling. Only 50% taught about condom efficiency, while 9% of leading health education teachers reported that last year teachers in their school taught about the use of condoms.

TABLE 9. During this school year, did teachers in this school teach about the following topics in required health education courses? (percent indicating "yes")

Basic facts about AIDS/HIV infection	99%
How HIV is and is not transmitted	98%
How HIV affects the immune system	98%
Disease progression of AIDS	90%
Needle-sharing behaviors that transmit HIV infection	99%
Sexual behaviors that transmit HIV infection	93%
Reasons for choosing sexual abstinence	96%
Correct use of condoms	9%
Condom efficiency/how well condoms work	50%
Influence of alcohol and other drugs on HIV infection risk behaviors	91%
Statistics on adolescent death and disability related to AIDS/HIV infection	84%
Group attitudes (social norms) toward risk behaviors related to HIV infection	78%
Statistics on the risk behaviors related to HIV infection among adolescents and adults	86%
Information on HIV testing and counseling	76%
Compassion and support for persons living with AIDS/HIV infection	83%
Perceptions of risk for AIDS/HIV infection	93%
Societal impact of AIDS/HIV infection	89%

Teachers did list a number of issues that made teaching about AIDS/HIV infection difficult for them; they are summarized in Figure 30. Forty-one percent indicated large class sizes made teaching difficult. Opposition of concern among parents and the community were factors that made teaching difficult for 37% and 31% of teachers, respectively. Other demands on class time made teaching about AIDS/HIV infection difficult for 35% of teachers. Insufficient teaching materials were a source of difficulty for 26% of teachers.

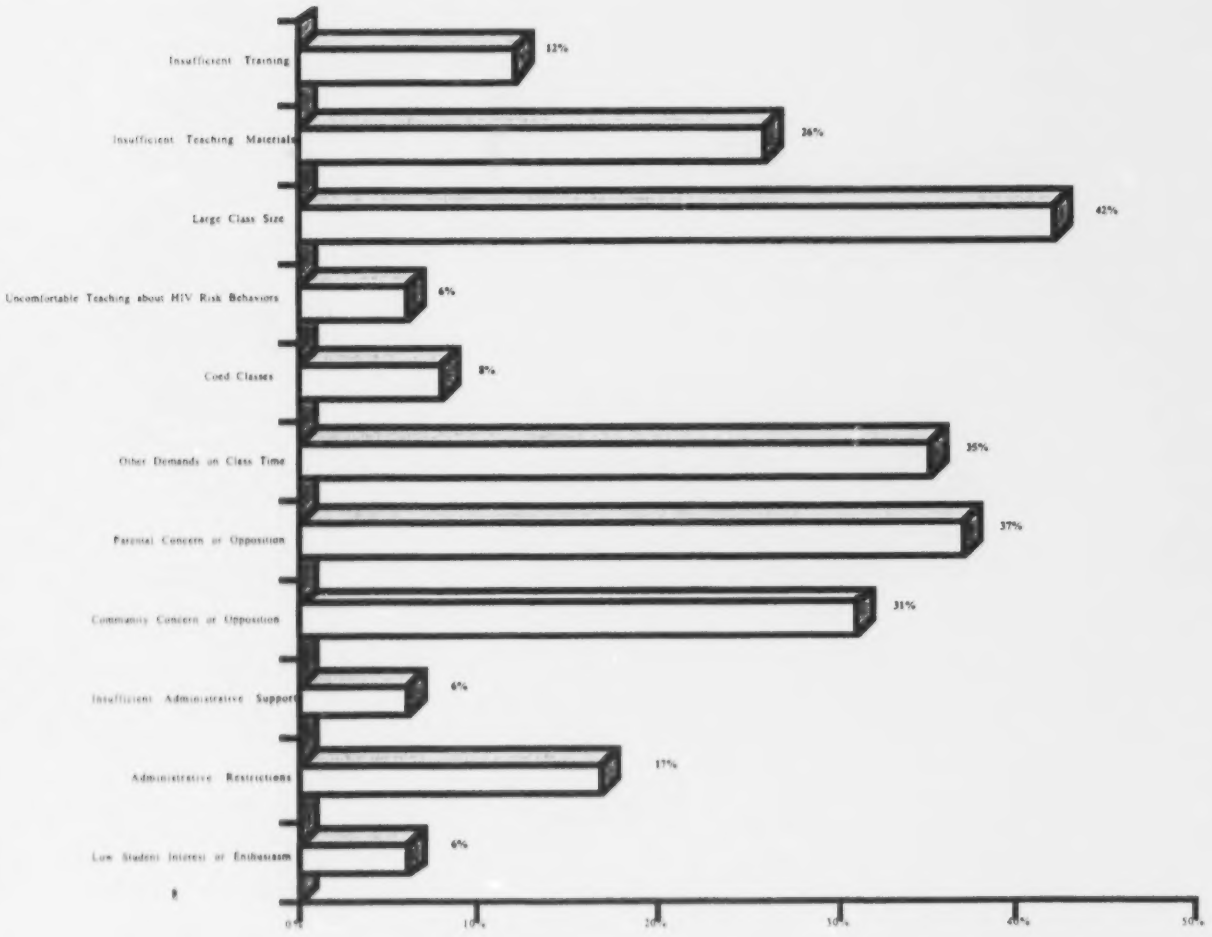


Figure 30. Did any of the following make teaching about AIDS/HIV infection difficult for you? (percent reporting "yes")

Health Education Teachers, Policies, and Activities

In nearly one-half of schools (45%), the health education teacher coordinated health education at the school. Fifteen percent indicated it was coordinated by a department chairperson and 11% by the district health education coordinator. Among teachers responding to the survey, most indicated they were the health education teacher or combined this with physical education (81% of responding teachers). Seventy-two percent indicated one or both of these fields was the major emphasis of their professional preparation. Sixty percent of health education teachers indicated they had been teaching 10 or more years, and 42% had been teaching health education for 10 or more years. Eighty-six percent of teachers indicated the state did offer certification or endorsement for health education in the grades they taught, and 86% indicated they were certified or endorsed in the grade they taught.

Table 10 presents a summary of health education topics for which teachers have received training and would like to receive additional training. A majority of teachers responding to the 1996 SHEP indicated they would like additional training in the areas of conflict resolution/violence prevention (76%), suicide prevention (71%), emotional and mental health (60%), human sexuality (52%), HIV prevention (51%), and death and dying (51%). Areas where only a small percentage of teachers have received any inservice training included dental and oral health (only 7% of respondents), environmental health (11%), consumer health (14%), community health (15%), death and dying (16%), and personal health (17%).

Figure 31 presents a summary of the support provided to teachers for inservice training or development. Eighty-three percent of principals indicated their school or district offered inservice training. A majority of principals also indicated their school offered support and financial assistance for health education teachers to attend inservice training. Ninety-three percent reported their school provided substitute teachers while a health education teacher was attending training. Reimbursements for travel expenses associated with training and a stipend for attending training were provided by 65% and 55% of schools, respectively.

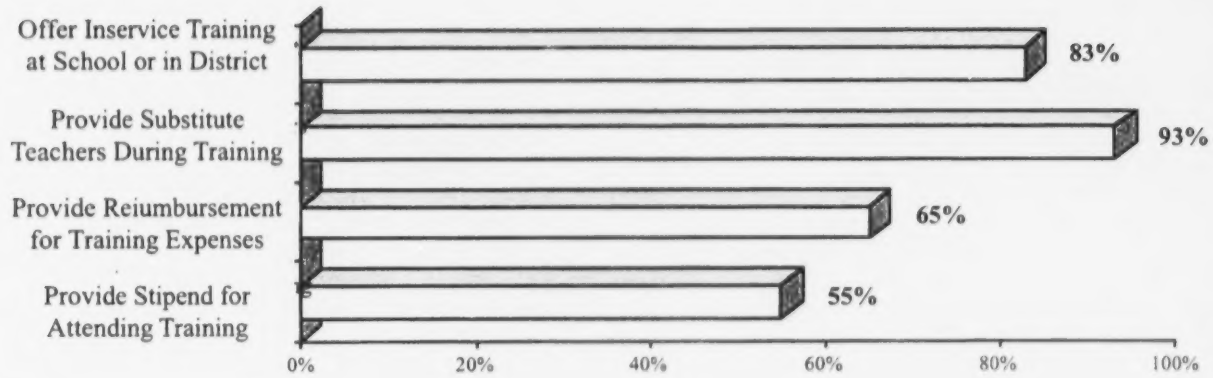


Figure 31. During this school year, has this school or district supported health education-related inservice training or staff development in any of the following ways for health education teachers? (percent reporting "yes")

TABLE 10. Percentage of Health Education Teachers Who Have Received Inservice Training/Would Like to Receive Inservice Training by Health Education Topic

	Percent Which Have Received Training	Percent Which Want Additional Training
Alcohol and other drug use prevention	55%	46%
Chronic diseases such as diabetes and asthma	8%	48%
Community health	15%	40%
Conflict resolution/violence prevention	47%	72%
Consumer health	14%	34%
CPR	55%	35%
Death and dying	16%	51%
Dental and oral health	7%	22%
Dietary behaviors and nutrition	35%	50%
Disease prevention and control	28%	45%
Emotional and mental health	30%	60%
Environmental health	11%	40%
First aid	45%	40%
Growth and development	23%	36%
HIV prevention	76%	51%
Human sexuality	63%	52%
Injury prevention and safety	24%	34%
Personal health	17%	36%
Physical activity and fitness	32%	38%
Pregnancy prevention	35%	50%
Reproductive health	43%	46%
Sexual harassment	60%	48%
STD prevention	56%	47%
Suicide prevention	25%	71%
Tobacco use prevention	39%	45%

Thirty percent of schools reported they had used trained peer educators to help teach about health in their school. Figure 32 presents a summary of settings where peer educators were used by these schools. Eleven percent of the principals responding reported their school had a school health advisory committee (or similar committee) that met on a regular basis. (See Table 11.)

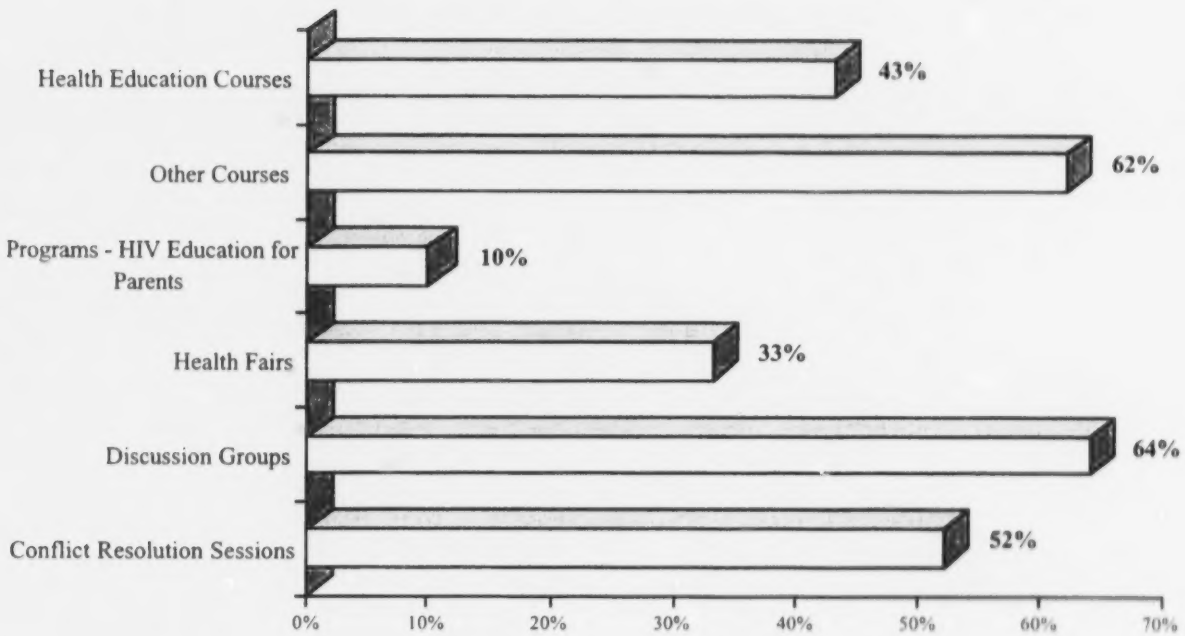


Figure 32. Does this school use trained peer educators to help teach about health in any of the following settings? (percent of schools with peer educators indicating "yes")

TABLE 11. Are any of the following represented on the school health advisory council? (schools indicating they have a school health advisory council)

Group	% Including
Students	48%
Parents	75%
Teachers	92%
Administrators	87%
Food Service Staff	31%
School Nurses	43%
Counselors	64%
School Board Members	24%
Public Health Department Staff	20%
Business Community	23%
Medical Community	42%
Mental Health Committee	30%
Church/Religious Organizations	10%
Community-Based Organizations	19%
Law Enforcement Organizations	30%
Other	26%

Written Policy on AIDS/HIV Infection

Seventy-five percent of the principals reported their school or district had a written policy on students and/or staff with AIDS/HIV infection (Figure 33.) Middle schools (teaching Grades 6 through 8) were the least likely to have a written policy (64%), while high schools that taught Grades 10 through 12 were the most likely (85%). Seventy-seven percent of junior high schools and 75% of high schools that taught Grades 9 through 12 had written policies concerning AIDS/HIV infection. Among those with written policies, 90% or more indicated that HIV education for students and staff (92% and 90% of schools with written policies), confidentiality (97%), discrimination (98%), and

worksite safety (96%) were components of this written policy. Eighty-nine percent indicated they had procedures for implementing the policy. A summary of the issues addressed in written policies is presented in Table 12.

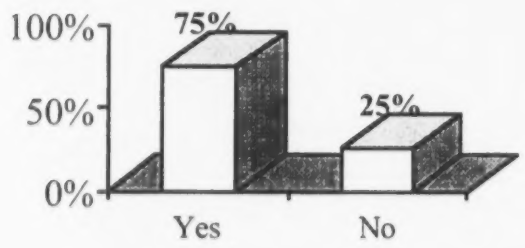


Figure 33. Does this school or district have a written policy on students and/or staff with HIV infection/AIDS?

TABLE 12. Are any of the following issues addressed in the written school or district policy on students and/or staff with HIV infection/AIDS? (schools with a written policy)

	% Yes
HIV Education for Students	92%
HIV Education for Staff	90%
Health Evaluations for People with AIDS	72%
Confidentiality	97%
Discrimination	98%
No Routine Testing	50%
Communicating Policy	77%
Implementing Policy	89%
Worksite Safety	96%

Parental Involvement and Feedback on Health Education and AIDS/HIV Infection

Nearly two-thirds of the principals indicated the feedback they received from parents on health education in their school was mainly positive (62%), as summarized in Figure 34. Three percent of the feedback was equally balanced between positive and negative comments, while 36% of the principals indicated they received no feedback from parents. Teachers received feedback from parents on a number of health topics.

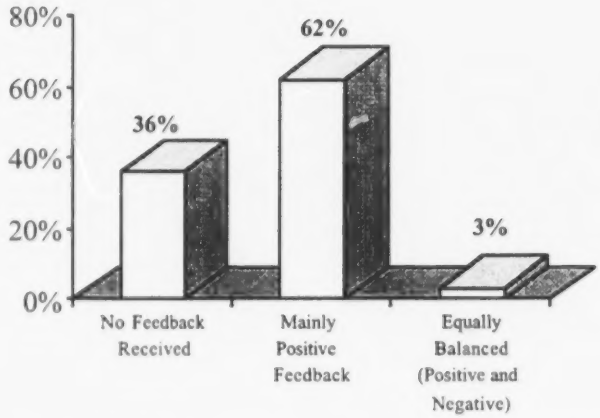


Figure 34. How would you describe parental feedback about health education in this school?

Table 13 presents a summary of health education topics where parental feedback has caused teachers to expand or limit coverage of health education topics. Nineteen percent of teachers indicated that parental feedback caused expanded coverage of conflict resolution/violence prevention, while 17% expanded coverage of alcohol and drug use prevention. Nineteen percent indicated that parental feedback caused expanded coverage of HIV prevention, though 15% indicated that such feedback caused them to limit coverage of this topic. Another 18% expanded coverage of human sexuality, while 19% limited coverage of human sexuality due to parental feedback. Finally, parental feedback caused teachers to limit coverage of reproductive health and STD prevention in 15% and 12% of schools, respectively.

Teachers used a variety of strategies to involve parents in the required health education courses their children attended in school (Table 14). Sixty-nine percent indicated that teachers in the school sent educational materials to parents, and 75% included parents in students' homework assignments. Fifty-three percent indicated that teachers in the schools had invited parents to be guest speakers, while 43% invited parents to attend health education classes or fairs. A smaller percentage of schools provided education for parents on AIDS/HIV infection, summarized in Figure 35. Thirty-one percent indicated their school invited parents to attend a class of AIDS/HIV infection, while 29% indicated materials were sent to parents about AIDS/HIV prevention.

TABLE 13. Has parental feedback caused teachers in this school to expand/limit coverage on any of the following topics in required health education courses?

	% Indicating Feedback Caused Expanding Coverage	% Indicating Feedback Caused Limiting Coverage
Alcohol and other drug use prevention	17%	2%
Chronic diseases such as diabetes and asthma	7%	1%
Community health	6%	2%
Conflict resolution/violence prevention	19%	1%
Consumer health	5%	0%
CPR	8%	1%
Death and dying	7%	1%
Dental and oral health	2%	0%
Dietary behaviors and nutrition	11%	1%
Disease prevention and control	9%	2%
Emotional and mental health	15%	2%
Environmental health	7%	0%
First aid	7%	0%
Growth and development	8%	3%
HIV prevention	19%	15%
Human sexuality	18%	19%
Injury prevention and safety	4%	0%
Personal health	9%	2%
Physical activity and fitness	6%	1%
Pregnancy prevention	16%	14%
Reproductive health	9%	15%
Sexual harassment	14%	4%
STD prevention	15%	12%
Suicide prevention	14%	2%
Tobacco use prevention	15%	2%

TABLE 14. Have teachers in this school used any of the following strategies to involve parents in required health education courses?

	% Yes
Sent Educational Materials to Parents	69%
Included Parents in Homework Assignments	75%
Sent Letters or Newsletters on Health Education to Parents	39%
Invited Parents to be Guest Speakers	53%
Invited Parents to Attend Class/Fairs	43%
Provided School Programs on Health Education for Parents	28%
Included Parents on Advisory Council	19%
Allowed Participation in Curriculum Development/Revision	38%

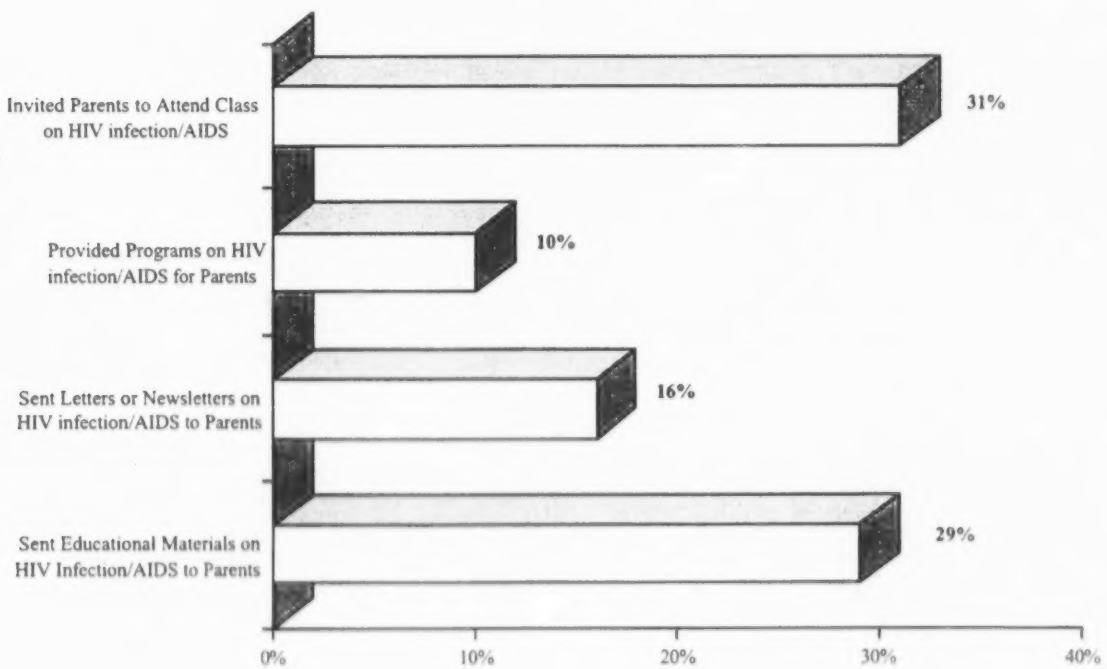


Figure 35. Has this school provided HIV infection/AIDS education for parents in any of the following ways? (percent indicating "yes")

Conclusions

The results from the 1997 Utah Youth Risk Behavior Survey indicate progress toward the national year 2000 health goals. However, these goals have not been met. Utah students in Grades 9 through 12 still engage in a number of behaviors that put them at risk for injury or death as well as increased social problems that they may carry into adulthood. In a few cases, results indicate Utah students are moving further away from national health objectives.

While too few Utah students are wearing seat belts, the percentage has risen since 1991 from 51% to 67% reporting they wore a seat belt always or almost always. No progress has been made in increasing the percentage of Utah students wearing helmets while riding a motorcycle (43% reporting they never wore a helmet), though the percentage that reported never wearing a helmet while riding a bicycle did decrease (from 84% in 1991 to 76% in 1997). The percentage of students wearing a helmet is well below the stated goals for the year 2000. The rates per 100,000 of Utahns age 15 to 24 killed in motor vehicle accidents is already below the stated goal for the year 2000. However, far too many students are either riding with a driver under the influence of alcohol or driving while intoxicated.

The rates of physical fighting and carrying of weapons have also decreased among Utah students, particularly among male students. The percentage of male students engaging in physical fighting has dropped 10 percentage points from 51% in 1991 to 41% in 1997. The percentage of males carrying weapons also decreased from 43% in 1991 to 39% in 1997. Both figures are encouraging though still too high. The percentage of male students carrying handguns has decreased during the 1990s to 15%.

The alarming rate of suicide among Utah students is one area of particular concern. The suicide rates in Utah are higher than the national average. The rates among males age 15 to 24 are substantially above the national average. There has not been a decrease in the percentage of students considering, planning, and actually attempting suicide since 1991. According to the 1997 YRBS, 8% of Utah students attempted suicide compared to 7% in 1991. This figure is also comparable to the national figure of 9%. Given the equivalence of attempt rates in Utah and nationally, why is the suicide rate so much higher in Utah? The 1997 YRBS may shed some light on this. Of particular

concern is the percentage of students who injure themselves while attempting suicide. The rates of injury among those attempting suicide have actually increased significantly since 1991 (to 46%, up from 30% in 1991). In addition, they are significantly higher than the national percentage of 32%. One possible inference is that once a student in Utah determines he or she is going to commit suicide, the student is more likely to conduct such an attempt in a manner that will actually result in their death. Teachers responding to the School Health Education Profile perceive a problem as well. Seventy-one percent of health education teachers felt they personally needed additional training on the topic of suicide prevention.

In most cases, the use of tobacco, alcohol, and drugs has decreased. The percentage of students who had tried smoking has decreased. In addition, tobacco use among Utah students is well below the national average. However, the percentage of students who smoke that have attempted to quit smoking has also decreased. This implies that a higher percentage of smoking students will continue this habit into adulthood. First time and continued use of alcohol in Utah students has also dropped, though the percentage of student drinkers is still quite high. As with tobacco use, the rates are significantly below the national average. However, one in four students reported drinking on at least one day of the past 30 and nearly one in five reported having five or more drinks in a row on one or more occasions in the past month.

One dismaying statistic is the increased percentage of Utah students who reported not only trying marijuana but also using it in the past 30 days. One in four Utah students has tried marijuana and 12% have used it one or more times in the past 30 days. Both percentages have increased significantly from 1991.

Eighteen percent of Utah students indicated they had done something to put themselves at risk for AIDS/HIV infection. No data were gathered to allow an assessment of risky behaviors these students may have engaged in, so it is unclear what students are doing to put themselves at risk. The percentage of students who perceive they have done something risky has not decreased since 1991. One bright spot is the percentage of Utah students who indicated they received AIDS/HIV infection prevention education at school and talked with family members about AIDS/HIV infection. Both percentages have increased significantly during the 1990s.

An area of critical concern is the extreme measures a larger percentage of female students are taking to lose weight. Nearly two-thirds (63%) of female students indicated they were attempting to lose weight. While three-fourths indicated they were exercising and 42% were dieting to lose weight, 18% of female students attempting to lose weight took more drastic measures: taking diet pills, vomiting, or both. In 1991, only 7% of female respondents reported vomiting, taking diet pills, or both, to lose weight. In 1997, this figure was 18% (6% reported vomiting, 7% took diet pills, and 5% of female students did both).

One of the best approaches to help reduce these behaviors among students is an effective health education program that addresses these particular issues. In Grades 6 through 12, the average student will take two health education courses. Each will, on average, last half the school year. During these classes, students will cover a variety of health topics. However, in many areas, teachers feel the need for more personal training. A majority mentioned conflict resolution/violence prevention (76%), suicide prevention (71%), emotional and mental health (60%), human sexuality (52%), HIV prevention (51%), and death and dying (51%). These, and other topics, are precisely those that address issues raised by the results of the 1997 YRBS. Efforts should be made to provide the training and assistance that teachers desire. Teachers, however, cannot change the behaviors of Utah students alone. The task will require a cooperative effort between school administrators, school board members, teachers, parents, and the students themselves.

References

Adams P.F. et al. (1995). Health Risk Behaviors Among our Nation's Youth: United States, 1992. National Center for Health Statistics, Vital Health Statistics 10(192). DHHS publication no. (PHS) 95-1520. Washington DC: U. S. Department of Health and Human Services.

American Psychiatric Association. (1987). Diagnostic and Statistical Manual of Mental Disorders, 4th ed. Washington DC: American Psychiatric Association.

Blanken, A. J. (1993). Measuring the use of alcohol and other drugs among adolescents. Public Health Reports, 108(1):25-30.

Bureau of Surveillance and Analysis. (1998). Action 2000 Data Inventory. http://hlunix.state.ut.us/action2000/datainv/datindex.html.

Bureau of Surveillance and Analysis. (1998b). Action 2000 Text Documents. http://hlunix.hl.state.ut.us/action2000/textdocs/state.txt.

Casey V. A. et al. (1992). Body mass index from childhood to middle age: a 50-year follow-up. American Journal of Clinical Nutrition, 56:14–8.

Centers for Disease Control (1991). Smoking-attributable mortality and years of potential life lost - United States, 1988. Morbidity and Mortality Weekly Report, 40:62-63, 69-71.

Centers for Disease Control (1996). Physical Activity and Health: A Report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, 1996.

Centers for Disease Control. (1995). Suicide among children, adolescents, and young adults - United States, 1980-1992. Morbidity and Mortality Weekly Report, 44:289-291.

Centers for Disease Control. (1987). Years of potential life lost before age 65: United States, 1987. Morbidity and Mortality Weekly Report, 38:27-29.

Centers for Disease Control. (1992). Participation in school physical education and selected dietary patterns among high school students—United States, 1991. Morbidity and Mortality Weekly, 41:597–601,607.

Division of Sexually Transmitted Diseases/HIV Prevention. (1992). Annual Report, 1991. Center for Prevention Services, Centers for Disease Control and Prevention, US Public Health Service.

Dryfoos, J. G. (1987). Working Paper on Youth at Risk: One in Four in Jeopardy. Hastings on the Hudson, New York: Report submitted to the Carnegie Foundation.

Gortmaker, S. L., Dietz, W. H., Sobol, A. M., and Wehler, C. A. (1987). Increasing pediatric obesity in the United States. American Journal of Diseases of Children, 141:535-540.

Guo S.S. et al. (1994). The predictive value of childhood body mass index values for overweight at age 35 years. American Journal of Clinical Nutrition, 59:810–9.

Herzog, D., and Copeland, P. (1985). Eating disorders. New England Journal of Medicine, 313:295-303.

Hofferth, S. L. , and Hayes, C. D. (eds.). (1987). Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing. Panel on Adolescent Pregnancy and Childbearing, Committee on Child Development Research and Public Policy, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington DC: Academy Press.

Johnston, L. D., O'Malley, P. M., and Bachman, J. G. (1989). Drug Use, Drinking, and Smoking: National Survey Results from High School, College, and Young Adult Populations, 1975-1988. DHHS Pub No. (ADM)89-1638. Rockville, MD: National Institute on Drug Abuse.

Kann, L. et al. (1996). Youth Risk Behavior Surveillance - United States, 1995. Morbidity and Mortality Weekly Report, CDC Surveillance Summaries 45(SS-4):1-84.

Luckenbill, D. F. (1977). Criminal homicide as a situated transaction. Social Problems, 25:176-177.

McGinnis J. M. , and Foege W.H. (1993). Actual causes of death in the United States. Journal of the American Medical Association, 270(18):2207–12.

Mitchell, J., and Eckert, E. (1987). Scope and significance of eating disorders. Journal of Consulting Clinical Psychology, 55:628-634.

Morris, L., Warren, C. L., Aral, S. O. (1993). Measuring adolescent sexual behaviors and related health outcomes. Public Health Reports, 108(1):31-36.

National Center for Health Statistics. (1993). Advance report of final mortality statistics. Monthly Vital Statistics Report, 42(2):supplement.

National Committee for Injury Prevention and Control. (1989). Injury Prevention: Meeting the Challenge. Supplement to American Journal of Preventive Medicine, 5(3).

National Highway Traffic Safety Administration (1987). The Economic Cost to Society of Motor Vehicle Accidents. Technical Reports DOT HS 809-195. Washington DC: US Department of Transportation.

National Highway Traffic Safety Administration. (1980). A Report to the Congress on the Effect of Motorcycle Helmet Use Law Repeal: A Case for Helmet Use. Washington DC: US Department of Transportation.

Office of Public Health Data. (1996a). Utah's Healthy People 2000 Health Status Indicators. Salt Lake City, UT: Utah Department of Health, Bureau of Surveillance and Analysis.

Office of Public Health Data., (1996b). Leading Causes of Death. Salt Lake City, UT: Utah Department of Health, Bureau of Surveillance and Analysis.

Office on Smoking and Health (1989). Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General. DHHS Pub No. (CDC)89-8411. Washington DC: US Government Printing Office.

Office on Smoking and Health (1998). Tobacco Use in Utah. CDC's Tobacco Information & Prevention Sourcepage. http://www.cdc.gov/nccdphp/osh/statehi/htmltext/ut_sh.htm.

Perrine, N., Peck, R., and Fell, J. (1988). Epidemiological perspectives on drunk driving. In Surgeon General's Workshop on Drunk Driving: Background Papers. Washington DC: US Department of Health and Human Services.

Public Health Service (1991). Healthy People 2000: National Health Promotion and Disease Prevention Objectives - Full Report, With Commentary. DHHS Pub. No. (PHS)91-50212. Washington DC: US Department of Health and Human Services.

Public Health Service. (1988). The Surgeon General's Report on Nutrition and Health. DHHS Pub. No. (PHS)88-50210. Washington DC: U. S. Department of Health and Human Services.

Rotatori, A. F., and Fox, R. A. (1989). Obesity in Children and Youth: Measurement, Characteristics, Causes, and Treatment. Springfield, IL: C. Thomas, Publisher.

Select Panel for the Promotion of Child Health (1981). Report to the United States Conference and the Secretary of Health and Human Services, vol. I, Major findings and recommendations; vol. IV, background papers. DHHS Pub. No. (PHS)79-55071. Washington D. C.: U. S. Government Printing Office.

Sosin, D. M., Sacks, and J.J., Holmgreen, P. (1980). Head injury-associated deaths from motorcycle crashes. Journal of the American Medical Association, 264:2395-2399.

Stein, R. F. (1987). Comparison of self-concept of nonobese and obese university junior female nursing students. Adolescence, 22:77-90.

Thompson, R.S., Rivara, F. P. O., and Thompson, DC (1989). A case-control study of the effectiveness of bicycle safety helmets. New England Journal of Medicine, 320(21):1364-1366.

Troiano R. P. et al. (1995). Overweight prevalence and trends for children and adolescents: the National Health Examination Surveys, 1963–1991. Archives of Pediatric and Adolescent Medicine, 149:1085–91.

U. S. Department of Health and Human Services (1990). Prevention '89/90: Federal Programs and Progress. Washington DC: US Government Printing Office.

U. S. Department of Health and Human Services (1994). Preventing Tobacco Use Among Young People: A Report of the Surgeon General. Washington DC: US Government Printing Office.

Utah Department of Health. (1985-1990). Obesity in Utah: A status report. Utah Trend Report, 2. Utah Department of Health, Bureau of Health Promotion and Risk Reduction.

Utah Department of Public Safety (1998). Personal Communication.

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